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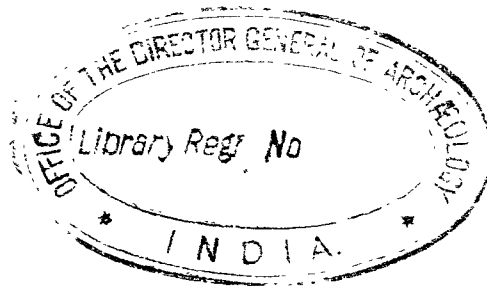
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Eighty-seventh Session — 1920-21.

INAUGURAL ADDRESS

By the PRESIDENT, JOHN W. SIMPSON, Membre Corr. de l'Institut de France.

Delivered at the General Meeting, 1st November 1920.

MY LORDS, LADIES, AND GENTLEMEN,—Twelve months ago—at the opening of our first session after the conclusion of Peace with Germany—it was my privilege to direct your attention to the qualifications of the Architect, with especial reference to certain aspects of a mental training which should render his services valuable to the State during a period of reconstruction. That since that time we have observed little recognition of the profitable asset the nation possesses in its architects will not greatly surprise you. When the Sower went forth to sow, some seeds fell by the wayside of Indifference; some fell on Political stony places where, having no deepness of Voting earth, they withered away; others among thorns of Vested Interest, which sprang up and choked them; only a proportion fell into the good ground of an intelligent audience! Yet the grain was of right quality, and the Sower's duty was to sow it. “He that hath ears to hear, let him hear,” says the Parable.

To-night I propose to follow my panegyric of the Architect's vocation with a word of good cheer as to the progress of the art he practises. That all is well at the moment I would not assert (it never was!); we are at one of the many difficult places in the age-long road of art we are building, in continuation of the work our fathers began at the world's foundation. There are many to tell us (there always were!) that what we do is by far inferior to what was done in the eighteenth, the fourteenth, in any century you please before or after the birth of Christ; that our case is desperate, since, in their opinion, we have lost direction. Well, it is not given us to see ahead; we can only range our course by the upstanding stones behind us. But if we step aside to the high hill called “*Clear*,” and look through the Shepherd's Perspective-Glaſs, we shall see that the track, though devious, trends always upward; we may even, as did Bunyan's Pilgrims, discern something like the Gate, some of the Glory, of the Cœlestial City to which it leads. Nor shall we fail to note that, while the work nearest our eye is intact and varies much in quality, most of that in the distant past has crumbled away, and only the best of its time remains.

The survey, I think, need not discourage us. It shows us art illimitably long, our lives too short

to achieve very much, either good or bad. If, then, we only maintain the standard of what has gone we have done well ; if we can advance it by the thickness of a finger-nail we rank with the great Masters of all time.

* * *

I am not one of those who have a quarrel with critics. " The business of the Opposition is to oppose," said Randolph Churchill, and criticism is the proper function of the critic. The work, too, of all creative artists is overt and published, be the publication world-wide or inconsiderable ; but, while that of the painter or the sculptor may be, for the most part, avoided by those who have no liking for it, there is no escaping from architecture. It frames our daily life ; whether we will or no we must look upon it, and submit for good or ill to the mental impressions it evokes. The public, therefore, as well as the technician, may rightly remonstrate if the architect compels them to unpleasing surroundings ; and the critic's duty, a very important one, is to represent and express the views of cultivated folk upon work they cannot choose but see. But the artist, on his side, may justly demand that the building which embodies his experience, knowledge, and skill in design, shall be judged by men competent to understand the laws of its structure, to appreciate its qualities of proportion, scale, and, above all, of fitness for its purpose. In other words, a critic should be thoroughly instructed in the technics of the work he undertakes to judge, so that he may rightly inform the public, whose education he assumes, and stimulate the artist by sound comparisons. " How difficult his duty is, and how ill it is performed for the most part," says Addington Symonds, " none knows better than one who has attempted to discharge it in a sincere and modest spirit."

Incompetent criticism, like any other public duty ill performed, has evil results. Persistent depreciation of contemporary and recent art is, in great measure, responsible for revolutionary efforts to break away altogether from the past, to find a new, and short, road to aesthetic expression. Exasperated by incessant taunts, unbalanced minds are stampeded from the quiet fields of honest study into the frantic eccentricities which, now and again, astonish us—and vanish into oblivion. The classic track is no easy one, they are told it leads nowhere, and lack the faith to follow it to fruition. Architecture has been, perhaps, less disturbed by the clamour than the sister-arts ; its solid ballast of utility has steadied it ; but architects, too, are disquieted by demands for originality, for a " national style," by assertions that " the old was better," by accusations of being mere copyists. We need not take the outcry too seriously : we remember how Molière's satires exposed the ill-informed carping of his day ; how, a hundred years later, Batteux the Academician groaned over the decadence of the eighteenth century. " It would appear," he writes, " that in the olden time true Taste was achieved without effort, while to us Moderns it comes only by an accident. The Ancients whose remains we know, led, as it were, by the hand of happy Inspiration, trod without fear or faltering the narrow path where we can hardly keep our footing." *

The parallel lies equally in literature. Pepys, an enthusiastic and intelligent playgoer, saw Shakespeare's plays, written some fifty years before, and thought mighty little of them. Having read *Othello* it seemed to him " but a mean thing," *Twelfth Night* he thinks " but a silly play, one of the meanest I ever saw on the stage," *A Midsummer Night's Dream* is for him " the most insipid, ridiculous play that ever I saw," while *Romeo and Juliet* is condemned as " the worst I ever heard in my life."

The middle period of the nineteenth century is still the common quarry of aesthetic hawks, but the work of its earlier years is now discovered to be better than was supposed : Gower Street, built in 1826, is no longer the type of the unlovely. Let us hear what Heine, an accomplished critic and admirer of London, who was here at the time, thought of its architecture. " These houses of brick," he writes in his *English Fragments*, " become of a uniform brown olive colour ; they are all of the same style of building,

* Ch. Batteux, de l'Académie Française, *Les Beau-Arts réduits à un Même Principe* (Paris, 1746).

generally two or three windows wide, three storeys high, with small red tiles above which remind one of newly extracted bleeding teeth ; the broad and accurately aligned streets seem to be bordered by endlessly long barracks. Rich speculators, to meet the demand, build wholesale entire streets of these dwellings, which they retail singly. At the west end, where the more aristocratic and less-occupied world lives, this uniformity is still more dominant : here there are **very** long and broad streets, where all the houses are as large as palaces, outwardly anything but distinguished, unless we except the fact that in these, as in all the better-class of houses in London, the windows of the first storey are adorned with iron-barred balconies, and on the ground floor there is also a black railing, protecting the entrance to certain cellar apartments buried in the earth. In this part of the city are also great squares, where rows of houses, like those already described, form a quadrangle."

It is no new thing, this eulogy of the past and disparagement of the present. We may doubt if any artist is justly appreciated till long after he is beyond the reach of praise or blame ; some may be overrated, others are certainly underrated, " the idols of past generations crumble suddenly to dust, while the despised and rejected are lifted to pinnacles of glory." * This is most true of architecture, for it is the mirror of our own life, and the reflection is too clear to be flattering.

* * *

My Address must necessarily, I fear, be deemed illogical. An artist must be convinced of the rightness of his own work, for without faith is no enthusiasm : a doubter can never achieve a great creation. If, then, he can so detach himself from conviction as to be able to compare the work of dead Masters with his own, to survey dispassionately the past and present, he is no artist, and has no more claim to attention than the casual layman ! The syllogism is irresistible ; I offer you my thoughts : you will form your own conclusions. For my part, I shall prudently evade the consequence of the argument and make no reference to the work of living men.

In determining the merit of modern architectural work there are certain actualities to be taken into account, if we are to arrive at a true judgment. To these, as it seems to me, sufficient attention is not given by those—whether technicians or lay-writers—who attempt to define the quality of recent design in relation to the standards bequeathed by the great ancestors of our calling. If I submit for your consideration some of these controlling facts, it is not by way of excuse for shortcomings, but in order to establish—what I believe to be the truth—that architecture in this country is by no means decadent : is, on the contrary, healthy, vigorous, and true to the immortal principles of our art.

Traditional education in design during the second half of the nineteenth century was disturbed—one might say bewildered—by a deluge of illustrated books and periodicals due to improved and cheapened processes of photography. The student, instead of having to select and make his own drawings of a chosen subject, thus found at his disposal a heterogeneous mass of information about buildings in every country and style. Though incomplete—presenting selected aspects only, of compositions which need plan, elevation, and section to reveal their true meaning ; and prone to emphasise the picturesque, rather than the greater qualities of our art—the material supplied was for the most part good of its kind, and we owe to photography many really valuable works of reference. The trouble was not so much the quality, as the sudden profusion of varied suggestions, confusing to the receptive mind, overtaking its capacity for absorption and digestion. In effect, we have lived through an age which has collected a vast deal of new knowledge, some superficial, but on the whole profitable. Our fathers hardly strayed outside the classic groves of Greece and Rome, save for excursions into the field of Italian Renaissance, a passing glance at its French manifestation, and perhaps a somewhat inappreciative survey of the Gothic cathedrals. We, cheaper and easier travel abetting, have had spread before us an architectural panorama of the whole world through seven thousand years of time—Egypt, Crete, China, Japan, Mexico, India, to say nothing of Spain and the less-visited parts of Europe. The consequence of such

* Addington Symonds, *On Some Principles of Criticism*.

an accumulation of new material may recall to you Stevenson's story of the Old Edinburgh grocer. This worthy had excited remark by buying up all the small, odd lots at a great wine sale. A curious neighbour called some time after to enquire what use he could have for such material. He was shown a great cask where all the liquors from humble Médoc to imperial Tokay were fermenting together. "And what," he asked, "will you call this?" "I'm no very sure," replied the grocer, "but I think it's going to be port!" In our case the result may, or may not, be something equally unexpected, but we see already a wider view prevailing of what constitutes tradition, a shedding of prejudice, and much experimental reproduction of exotic work; tentative efforts to find seemly clothing for new needs, to which neither toga, trunk-hose, nor periwig, can be suitably adapted.

These "new needs" form perhaps the chief reason for the change from what was deemed traditional design. Educational and commercial requirements, for example, have altered materially since our boyhood, and have to be frankly recognised and provided for. The plate-glass shop window has become an essential element in street design, and we can see already in progress the transition from a monumental ordinance, with its lower storey removed—leaving the stately superstructure in the air—to a light pier-treatment carrying an appropriate surface over. With modern systems of construction there should be no difficulty in treating the lower storey as a void, instead of as a solid; but the Italian or French palace motive must be abandoned. The great perpendicular windows of York, Beverley, or Gloucester, and those superb arched and traceried canopies where mass increases upward, offer fertile suggestions for steel-frame treatment.

Another and most important factor in contemporary design is Hygiene. We are still boggling at soil, waste, and ventilating pipes: deliberately omitting them from our elevations, and letting the sanitary engineer carry them as he can, sprawling over our piers, cornices, and roofs, where they are not shamefully buried in the walls. But the apartments to which they pertain have perforce to be considered, and fenestration becomes a difficult matter; we may no longer plan majestic ranges of window, behind which bathrooms, sinks, and sanitary needs are left to be contrived as best they may. Health authorities fix the area of our windows, settle their height with relation to the ceiling, and (very properly) take no account of a predilection for unbroken wall-space, or of a desire to build according to the tradition of our forefathers; in which, I may observe, external fire-escape stairs found no place. Inside the building similar questions arise. Staircases must be enclosed, to the destruction of delightful vistas; elevators, incongruous to Renaissance motives, are wanted; immense conglomerations of pipes, tubes, and wires must be laid out, and planned in shafts where they can be reached for repair; light and ventilation take precedence of suggestive mystery, and the effect on plan and decoration is revolutionary.

It is useless to cry after the traditions of past days; our problems are altered, and we have to solve them in our own way. Naturally, the change is not yet complete. Fragments of old, beloved formulae still cling to us—not only architectural; railways have existed for a century, yet there are still in use carriages which retain the lines of a stage-coach; the motor-car has long been common, and, as Wells once said, "before each still trots the ghost of a horse."

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It is needless to prolong a recital of the innumerable new conditions, materially affecting design, under which we work; the mere suggestion will bring them crowding to your mind. There is another point to consider when we try to measure the art of to-day with that of the past. It is extremely difficult to estimate the exact, cold value of bygone work; time touches even the commonplace with beauty. "The old Masters of painting," said Millais, "have Time and Varnish on their side"; and sturdily asserted his own place beside them. To the artist's mind, the softened outlines and mellowed colouring of ancient buildings make irresistible appeal; while the hard baldness of the new repels him. For the true appraisal of what is generically termed "old work," we must mentally divide

it of this adventitious charm, disperse the mist of historic and personal associations through which we see it, and reduce it to its first intention. It is a mere fact that many admired buildings of the past owe but little to their original design, are, moreover, a fortuitous combination of many men's work at various times. Conscious of their elusive, but extrinsic, beauty—students essay to delineate them by methods that emphasise their pictorial character, rather than by the merciless line of geometrical projection which, while finely sensitive to the great qualities of proportion and scale, takes no account of flattering accidents. Conversely, the weak designer strives to win public sympathy by exhibiting drawings of his work, not as it is, but as he hopes it may appear a century hence—ambiguous in detail, weather-stained, grown upon by lichens, and half hidden by foliage.

The charge of "copying," of plagiarism from the past, is perhaps a little inconsistent with the accusation that we disregard tradition; it is none the less interesting to examine. In so far as it is true, it implies a curious failure to realise the great principle that the art of architecture is, *perforce*, continuous. "Time," said wise Verulam, "innovateth greatly, but quietly, and by degrees, scarce to be perceived; for otherwise whatsoever is new, is unlooked for: and ever it mends some, and pairs others." We may set out to copy, but we cannot succeed. Our ancestors believed themselves to follow the work of their predecessors, and the changes they made in it—probably unpleasing at the time, so far as they were recognised—are clear enough to us. We can identify the buildings that remain, century by century, without need to consult the records of the time. So posterity will examine and date with accuracy the work we do: stamped unconsciously by ourselves as of the last years of the nineteenth, or of that early twentieth century in which we live. You may think to cover yourself with antiquity as with a mantle, but the fashion of your body is as God willed it, and the folds of the garment you have assumed reveal you. Man may not escape the influence of his age: your work, do what you will, is your own, and yours is the responsibility for it. The buildings of the Gothic revival were—and are—denounced as artistic forgeries, yet they can no more be taken for mediæval work than St. George's Hall for that of Roman times. Their date is as unmistakeable as that of the buildings which inspired them.

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The artist needs encouragement if he is to produce fine work. In so far as my modest authority warrants, I desire to offer it to my fellow-workers, to bid them lift up their hearts and take courage, in full assurance that every building they rightly plan, and honestly construct, stands squarely upon the ancient ways. That in my will survive as classic is not to be expected, for the Calendar of Saints is kept severely close, and "classic," as Guadet finely says, is the artistic equivalent of canonisation. All is classic that deserves to be, irrespective of centuries, origins, or latitudes. It imposes itself: we can only observe and register it. All that has come victorious from the eternal conflict of the arts, all that is universally acclaimed as admirable, is classic. Few buildings in any period have withstood successfully the "*advocatus diaboli*," but we need not doubt that our time will furnish its proportion. Such buildings as Westminster Cathedral, the Houses of Parliament, and St. George's Hall: the works of Soane, Scott, Bodley, Pearson, Pennethorne, Philip Webb, Shaw, Street, and their like will not be denied immortality. Art, like nature, sows with a full sack (ours has been a very fertile age): much perishes, and only a few plants of each sowing excel, splendidly abnormal.

Yes! I do not fear to believe that the level of our architectural design is high—higher perhaps than that of any period or country. Our domestic work is the admiration of the world: there have been built throughout the kingdom, during our short span of years, Town Halls, Museums, Palaces, Offices, Hospitals, Libraries, Schools, which have passed unnoticed save in the local or professional press, yet are gems of design, and will be so recognised hereafter. In economic fitness of plan, in structural craft (we have now enlisted steel to our service), in the standards we exact of workmanship and material, our work stands higher than at any former time.

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Such is my belief. I assert nothing: neither you nor I can speak with certainty of the relative merit of our contemporary art. The page is too near our eye for us to read what is written there: distance is required for mental, as for physical, vision to find a proper focus. The perspective of time, like that of space, is needed for a just comparison of distant objects with those near at hand. Moreover, we have all seen too many changes of thought, with regard to accepted canons of belief, to be dogmatic in opinion. Hazlitt observed, long ago, that distance of time has much the same effect as distance of place*: though, strangely enough, while perceiving this truth with regard to the future, he missed its equal application to the past.

The question of "originality" is bound up with that of comparison. Ecclesiastes, you will remember, pointed out that "The thing which hath been, it is that which shall be: and that which is done is that which shall be done: and there is no new thing under the sun. Is there anything," he asks, "whereof it may be said, See, this is new? it hath been already of old time which was before us." In this sense, originality is, of course, impossible: on the other hand, the permutations and combinations of the eternal elements of architecture are beyond number, and I take the demand for original design to mean no more than for a fresh disposition of walls, doors, windows, roofs, their proportions and decorations. Here arises a curious point in support of the words of Solomon, who, you will also remember, "praised the dead which are already dead more than the living which are yet alive," for quite other reasons than those of our critics. If a building could be imagined which should be wholly original in design, neither its merit, nor its demerit, could be appreciated by the human mind. It would speak an unknown tongue, and there would be no standard by which to compare it. It follows that in every design must be repeated some known forms, or features, whereby we may interpret and recognise the composition. Here is the reason why old work, the masterpieces of antiquity, must be studied with assiduous care and exactitude, lest our knowledge of them be imperfect, and tradition debased by inferior reproduction.

As for "national style," whether it be good or bad it clearly exists. No one could mistake a British city for one of any other country; our national signature is written all over it. It is nevertheless possible that we are on the verge of such a new departure in our art as has taken place in the art of warfare, where "fighting," in the historic sense, with the development of guns and swords, seems likely to give place to mere destruction by misuse of the products of peaceful industries. In our case, it may well come about by frank recognition of the qualities of the machine, as opposed to obsolete methods of hand-work. There is nothing inherently uncongenial in the association of machine-work with architecture; the real incongruity is in attempts to maintain, or revive, mediæval craftsmanship in the twentieth century. Its charm lay in its spontaneity, its unaffected fitness for the surroundings of its date: to imitate it is to fabricate artificial flowers, which lack life and perfume. "The swift stride of civilisation is leaving behind individual effort, and turning man into the Daemon of a machine. To and fro in front of the long loom, lifting a lever at either end, paces he who once with painstaking intelligence drove the shuttle. . . . Once the reaper grasped the golden corn stems, and with dexterous sweep or sickle set free the treasure of the earth. . . . As with the web and the grain so with the wood and stone in the treasure house of our needs. . . . and it must be so, for as little as great King Chut could stay the sea until it had reached the appointed place, so little can we raise a barrier to the wave of progress and say, 'Thus far and no further shalt thou come.'"[†] We live in an age of machines, and true architecture must needs reflect their influence. If we set ourselves to the planning and constructing of buildings supremely proper for their purpose, art will take care of itself.

An artist will always solve his problem artistically. Finding inspiration in stern Utility, it becomes by his touch transmuted into--

Some fragment from his dream of human life
Shaped by himself . . ."

* "Why Distant Objects Please" (Table-Talk).

† Michael Farless (*in* *The Roadmender*).

VOTE OF THANKS TO THE PRESIDENT.

THE RT. HON. the EARL OF CRAWFORD AND BALCARRES [*Hon. A.*]: Mr. President, Ladies and Gentlemen, I am honoured by being allowed to submit a vote of thanks to the President for his Inaugural Address. I think you will agree that a vote of thanks, as such, is a poor reward for so well-considered and for so encouraging a statement as he has just made. It seems to me that the main propositions underlying the Address are, first, that good work is being done to-day; secondly, that criticism is too often harsh and unsympathetic; and, thirdly, that the architect deserves encouragement and recognition from the community as a whole. With those three fundamental propositions I heartily concur. And I may perhaps indulge in the luxury of a word or two of comment, being myself a critic. But putting aside the great buildings immediately before the lifetime of the senior members of this Institute, actually to-day good work, honest work, fine and original work, is being regularly achieved. And I think it is universally acknowledged—all over Europe, at any rate—that in domestic architecture, particularly in the country house, and especially in relation to its garden-setting, British architects occupy, if not actually first place—are at least in the front rank of that branch of art. With regard to the production of a very important factor in British life, business premises, I am told by foreign business men, friends of mine, that our office accommodation is planned with an extraordinary economy of space, with a maximum employment of light, and generally that the work is done in a thoroughly businesslike way. There is no better tribute to a piece of architecture than that it should perform its function temperamentally as well as physically. But let me say a word of comment about business premises. Why is it, pray, that you architects invest the factory with so little artistic line? Is it the fault of the patron? I do not think the man who puts up a factory is any stupider here than anywhere else. I have often thought that some architects seem to settle their façades before they have quite mastered their ground plans! When I travel through industrial districts—and I come from a very industrial district—I often wish local architects would reverse the process. That is something which, I think, our architects, certainly in industrial districts, could very well give attention to in regard to what is done abroad, where extraordinarily good work is being done by observing very simple and very inexpensive means. This should be done in the case of our workshops and factories here, which are the biggest buildings, taken as a whole, that are erected in this country, giving a distinction which they pre-eminently lack to-day. The Scandinavians are developing a distinct art in the planning and decoration of the chimney-stack. We have got

more chimney-stacks in this country than any other country in Europe has: and I commend that also to your attention. There is one bye-path of architectural activity and research in which I take a great interest myself, and that is the preservation of ancient buildings. In that artistic application of science and the scientific application of art our British scholars and architects are, without exception, supreme. Finally, in the actual technical construction of our buildings I take it that architecture was never better than it is to-day. Yet, in spite of that, there is, unquestionably, disquietude and anxiety. That was clearly reflected in the President's Address. And the immediate outlook gives, I fear, a good deal of cause, perhaps not unjustly, for anxiety. Architects are always faced by difficulties, and, in fact, those they are facing to-day are more serious than in the lifetime of any of us. The cost of construction and of material alone, how tremendous that is! And yet the same kind of difficulty has occurred before. You will remember that Michael Angelo spent no less than eight months on end at Carrara getting together his material: and very few of you gentlemen, however great your patience, would do that, I imagine. How can the short supply, or the defective supply, of material be overcome? I hope, somehow, that in simplification of design and the exclusion of purely decorative and enriching work, some escape from this may be discovered. Certainly the modern building which I admire most of all in London is probably the simplest that has been erected during the last hundred years, and that is a building which is not by any means a hundred years old. But it has charm, and its distinction depends entirely on the purity of its lines, because it has got nothing except line, and pure line. I suppose all art must depend less or more on the purity of its line. In sculpture line is concealed by contour, and in painting it is veiled by the colour, but in architecture the line is more significant than in any other of the arts, and therefore more eloquent. Perhaps modern conditions and modern difficulties may drive or impel architects to give more and more thought to that problem, and that in this direction one element may be found towards the solution of the problem, which is difficult to-day, and is going to be difficult for a very much longer period than many people seem to anticipate. That is one difficulty, and a real and outstanding difficulty, by which the art is now faced. The President truly, and indeed finely, said that time touches the commonplace with beauty. Yes, that is true. But, at any rate in London, time is apt to invest our buildings with accretions of soot which have the strength and consistency of stone, and I often wonder what this is ultimately going to involve—the façade of St. Paul's, for instance, or the great

cornice of the Reform Club, or the pedestal of the statue of Charles I. Our London atmosphere is persistent—it never rests—its influence on the architect is perennial, it is daily, it is hourly. And although it has a certain beauty of its own, I am conscious of the fact that there is a chemical element in this picturesque decay: and I am wondering what in another hundred or two hundred years the result on a building already old is going to be. Its chemical effect has a result which discounts and almost entirely removes the beautiful effect of time. The Carlton Club, for instance, is, in many ways, a noble structure. I believe it would easily hold its own in comparison with a palace in Vicenza, and yet, with every year that passes, that building becomes more dowdy in appearance. I believe that is the case not merely in London but elsewhere, too. In the last few years my own garden has been devoted to tomatoes and potatoes, leeks, and such other serviceable things. Everything else has been neglected. It contains none of the charm of neglect which one associates with the neglected gardens of Italy. Here it is vulgar, it is commonplace: it is neglect that deserves rebuke, not a neglect which inspires us to enthusiasm when we see beautiful things grow, and which would be beautiful if they had a better climate than our own. There is another trouble which we always hear you architects talk about, and that is the Building Bye-laws, the City Council, the County Council, the Office of Works, or the host of good fellows who give you advice which you have got to take. (Laughter.) We must accept the situation. The President referred to hygiene. There are all sorts of tiresome rules with reference to drain-pipes, gas-pipes, and so on. In those matters, art is properly subordinated to science, and I say so without the slightest fear of dispute. And I am sure of this, that if Palladio and Vignola were brought here and taken a tour of London by your President and Council, they would be profoundly impressed and be enthusiastic about the main drainage system of London. (Laughter.) I have no doubt that those two eminent predecessors of Mr. Simpson would gladly exchange some of the freedom they enjoyed in Italy for some of the trammels under which you labour; and, in any case, you must acknowledge that the wives and daughters of the Fellows of the R.I.B.A. have long since given up the habit of catching typhus fever. (Laughter.) But let me say one word about the critic and the difficulties that he produces. People who interest themselves in art are not necessarily critics, but those who interest themselves in art without practising the art, and commit their views to paper are, *ipso facto*, critics. I rank myself among them. The President has laid down a code for the critic which is by no means too severe, because although critics have always been a fair object of reproach among practising artists, I must say that the recent style of criticism has shown a certain vivacity which may really tend to discourage good and original work. Two or three nights ago I had the honour of meeting a very distinguished French architect, M.

Louis Bonnier, who is not only distinguished as an architect, but is the Head of the Prefecture of the Seine, and I suppose he has a guiding and ruling influence on the whole of the civic architecture of Paris. I was struck by his appreciation when he said that in France he stimulates effort by saying "Look what they are doing in London streets, transportation, garden cities, domestic architecture: in those matters we are a bit behind hand in Paris." That encouraged me. But, of course, M. Bonnier was not a critic in the sense that he was not himself active in the way of being a practising artist. What puzzles me so much is that the critics are inventing a new language, writing in a new tongue: they are inventing new schools of art and new methods of analysis, which it is sometimes rather difficult to understand. The other day I came across an authoritative analysis of Divisionism. I will tell you what Divisionism is according to the masters of the New Impressionist group. I may say Divisionism is painting. Divisionism secures all the advantages of luminous and harmonious colouring, first through the optic blending of absolutely pure colours, including all the shades of the prism in every tone. Secondly, through the separation of various local elements, such as local colour, colour due to lighting, and the reactions between these two. Thirdly, through the balance of these elements and their proportion according to the laws of contrast, degradation and irradiation. And, lastly, in the choice of touch proportionate to the size of the picture. (Laughter.) There you have it in a nutshell. (Applause.) I am sure lots of you are longing to go and paint a Divisionism portrait to-morrow, and you can do so because you need not pay attention to whether you have the picture upside down or not. But it is interesting. What does it mean? Is it a passion for a spurious originality? Is it a serious hatred of what was painted by Rembrandt, by Velasquez, or by Gainsborough? Or is it mere jingle and rhodomontade? Architecture, fortunately, is less disturbed by these ravings than is painting or sculpture. It is easy to paint a picture and hang it upside down, but you cannot build a chapel or a Board school and place it in an inverted position. Moreover, as the President pointed out in his Address, architecture has a solid basis of fact, a utility which makes it a little difficult to define in that kind of phraseology. To that extent, therefore, these extravaganzas cannot apply very much to architecture. But analogies are close enough to be bewildering, and perhaps, injurious as well. The great French philosopher Ernest Hello said that criticism is the conscience of art. So it is, or it should be. But critics need criticism just as much as their victims do. And critics should learn that it is not sufficient to be destructive: that the word "critical" should not only have its modern connotation, hostile criticism, but it should be equally encouraging wherever merit can be found to exist. (Applause.) I hope architects are not really discouraged by the assurance with which their work is attacked. During the last half-century this country has constructed

buildings which are world-famous, and which will continue world-famous. To-day admirable work is being done under very difficult conditions, work which is a prelude to still greater achievements. I am sure myself that with patience and with assiduity—above all with courage—architecture will, as the President has said, remain true to the immortal principles of the art, and will realise an achievement of which later generations may justly be proud. (Applause.)

The Very Rev. W. R. INGE, D.D. (Dean of St. Paul's): Ladies and Gentlemen, I think the seconder of the vote of thanks is only expected to make a very few remarks, and to cut what he has to say very short. I have been much struck, in listening to the admirable Address we have heard, by the fact that the President said nothing about the War, and—what is even more strange—nothing about the much more awful peace which has followed it. (Laughter.) One would have thought that, at a time like this, when the bricklayer, apparently, is only willing to do 2½ hours' work a day and to earn about 16 a week for it, and when, on the other hand, one hears of noble dukes and other peers trying to get rid of their palaces, or pulling down parts of them, while unfortunate bishops are trying to make presents of their "white elephants" to theological colleges—one would have thought that at such a time architects could only look forward to being employed in putting up sympathetic almshouses for members of the upper or middle classes, after, of course, providing a certain number of palaces for miners and railwaymen. (Laughter and applause.) Perhaps they look forward to some main street of London being adorned by splendid offices of the various Trades Unions, from which raids on the community may be organised. (Laughter.) That, very likely, will employ their talents to great effect. However, it is pleasant to find that this great profession is able to face the future so encouragingly, and so, I have no doubt, whatever may happen, there will always be a call for beautiful and graceful buildings. And, what makes it more interesting, they will probably have to take new forms, and the architects will have to devote their talents to a class of buildings which they have not had to think

much about at present. I cannot for a moment guess what the new style of architecture will be. I fancy it will not be very startlingly unlike the best we have had in the past, for, after all, the architect's materials, and so on, impose a certain restraint upon him; one cannot imagine an Impressionist or Cubist style of architecture corresponding to the vagaries of our painters, and it is only in the construction of theological arguments that the foundations are apparently ingeniously supported by the superstructure. (Much laughter.) I have nothing more to say, except to express my admiration for the Address which we have just heard, and, as one of the guests this evening, my gratitude to the architects for their kindness and hospitality in inviting me here, and in doing me the honour of asking me to second this vote of thanks. (Applause.)

The PRESIDENT: I am exceedingly obliged to you, Lord Crawford, and to you, Mr. Dean, for the kind things you have said in proposing this vote of thanks. I think the good old French method which, I believe, is still maintained in some of the City Companies, of coupling every acknowledgment of a toast with the proposal of another, would be very appropriate to-night; and, in thanking you for the vote you have accorded, I would like, in my turn, to invite this company to thank Lord Crawford and the Dean for their kindness in coming here—(applause)—and speaking to us. We do feel considerable confidence in ourselves. If we were without that, we might as well go away, because, as I say, without faith there can be no enthusiasm. And we propose—and the Council have expressed their general approval—to brave criticism and public opinion and hold an annual exhibition of our current contemporary work in the winter, in addition to the exhibition held earlier in the year at the Royal Academy. With regard to the Building Regulations which have been spoken of, I do not complain, although they do alter and affect the conditions under which we work. I think it is a very good thing that the Rules and Regulations are such as would provoke the admiration of a Michael Angelo if we could have the privilege of conducting him round London.

CORRESPONDENCE.

German War Constructions.

Upwood, The Bridle Road, Parley, 28 Oct. 1920.
To the Editor, JOURNAL R.I.B.A.—

DEAR SIR.—In Mr. Murrell's interesting article on the German War Constructions,* in describing the Zeppelin shed he mentions that the struts are supported by "curious anchor members attached to wire ropes." I do not know the construction of the sheds in Cologne but in the three sheds at Cognelee, near Namur, the function of the wire ropes and struts was not support, but the method of erection. Fig. 1 shows the trusses

laid out on the ground ready for lifting. The foot containing the winch runs on a section of broad gauge railway track. The main strut *B* is hinged to a concrete base and to the truss. At the foot of this truss are two flanged wheels round which pass two wire ropes. One end of each of these ropes is secured to the main truss, and the other end passes round the drum of the winch. The secondary strut *C* is fixed to the rope and is also hinged on to a base plate. The function of this strut is to raise the rope so as to overcome the initial strain when the main truss and the strut *B* are almost in a straight line. As soon as the truss is in position these struts *C* are of no further use; indeed, in the Cognelee sheds they have been disconnected from their bases and hang loosely on the ropes.

It is probable that these sheds were laid out on the ground, the roof covering and the great skylights put in, and then the whole raised together. Each truss is complete in itself even to the very complicated eight-man winch at its foot. When the shed is erected the weight is taken off the winch trolleys and the foot anchored to the ground.

The great doors are hung from the top of the special frames, and are opened by a four-man winch in the thickness of each leaf. These doors had a nasty knack of running open of their own accord in a high wind and coming off the rail at the top. But in spite of some very high winds in 1919, when the sheds were used as a dump by the Directorate of Engineering Stores, the main structures remained absolutely rigid. Yours truly,

L. E. WILLIAMS | 4
 Late D.A. D.E.S., Belgium.

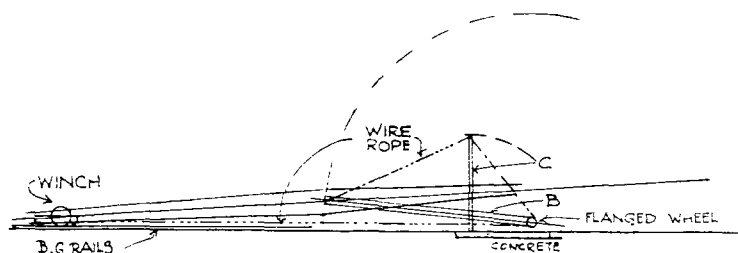


FIG 1

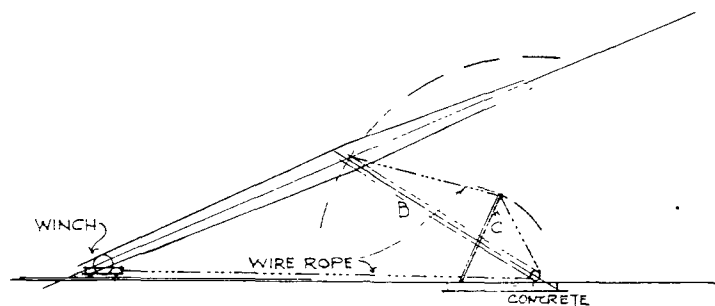


FIG 2

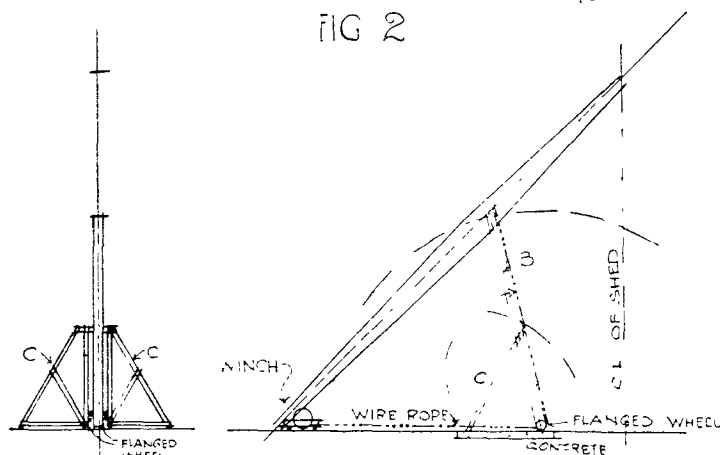


FIG 3

SECTION

ZEPPELIN SHED, NAMUR.

Professional Solidification

To the Editor, JOURNAL R.I.B.A.

DEAR SIR.—The recent appointment of the Unification Committee, and in turn its reference of certain important questions to a Sub-Committee, carry forward a long-drawn-out controversy at least to this extent that the necessity for solidarity within the architectural profession is at length admitted—solidarity of aim at least, not necessarily unification within one organisation. This aim is, as it always has been and must be, that of promoting and if possible securing good architecture primarily. Bound up with this, but secondary to it, is the securing of the well-being of architects.

Though numerically one of the smallest of the professions, architecture in

our country at any rate, possesses several organisations, great and small, metropolitan and provincial, loosely connected, if connected at all, and each managing its own concerns. The results are in many ways good. There is a healthy rivalry, local needs are reasonably met, and divergent views are permitted utterance. So great are these advantages that any scheme which would militate against them must be avoided: and yet unity of general organisation is also advisable in order that the great matters of the standardisation of minimum qualification and the enforcement of a code of professional ethics may be authoritatively dealt with.

These same considerations presented themselves to certain of us rather more than thirty years ago, and I would venture to draw the attention both of the Committee and Sub-Committee to the Architects' Registration Bill, as it was drafted in, I think, 1888, the exact provisions of which are probably known now to very few. It was a carefully prepared measure, based very closely upon the Medical Act, which well met the conditions as they existed then, and would equally well meet the conditions of this time also, with a little judicious amendment—very little being needed. In principle it sought to establish a General Architectural Council upon which all existing architectural bodies as well as the public (through Privy Council nomination) should be represented. The functions of this Council would be similar to those of the Medical Council, namely to establish a register at a given date of all architects with certain practice or educational qualifications, and subsequently to restrict this register to such as have been systematically educated for the practice of architecture and have proved their qualifications—with certain carefully safeguarded powers for removal from the register of persons who should professionally misbehave.

A further section of the Bill provided for reciprocal arrangements being made with foreign countries and our own self-governing Dominions.

This measure would meet all requirements now: though it is open to discussion whether the General Council should itself examine, or whether the custom of the medical profession should be followed and several bodies be given the right of holding qualifying examinations, as in fact they do now.

What I ask is that the Bill itself should be studied by those who form the new Committee with the same detailed care as was bestowed upon it by us who drafted it—of whom but few besides myself remain alive, while none are on this Committee. Yours faithfully,

G. A. T. MIDDLETON [A.].

Books Received.

Exercises in Graphic Statics, with Examples of its application to Practical Designing of Constructional Steel Work. By G. I. Charnock, M Inst C.E., Professor of Engineering, Bradford Technical College. Part I.—Roof Trusses, Braced Cantilevers, Braced Crane Jibs, etc. [J. Halden and Co., Ltd., 5, Albert Square, Manchester.]
Victoria and Albert Museum. Review of the Principal Acquisitions during the year 1917. Illustrated. 1920. 4s. 6d. net. Published under the authority of H. M. Stationery Office.

ALLIED SOCIETIES.

Manchester Society of Architects.

The following is extracted from the Address delivered by the President of the Society, Mr. A. W. Hennings [A.], at the Opening Meeting of the Session, 13th October:—

Remembering many Presidential Addresses during the past forty years, it seems almost hopeless to find anything that has not already been said, and I do not propose to do more than review the past, the recent past only, and try to point out the probable direction we shall be forced to travel.

Change, vital change is taking place in our profession, and I honestly believe it is all to the good. Let us remember with gratitude all the past efforts that have been made, the unwearied devotion that our past leaders have given to the advancement of Architecture, the glorious enthusiasm of the younger men—forgiving even the crankiness that is inevitable to all vitality and grasping firmly the fact that every year adds something to the great treasury of knowledge.

Until 1914 the development of the practice of architecture was running in ordinary channels, sometimes quietly and peacefully and sometimes the enthusiasts gave us all a good shaking up, but, speaking broadly, any well-informed man could see pretty clearly where we were going. We followed old well-known ways, and the things done at the centres of civilisation gradually found their way into the newer countries, and again the methods of meeting the difficulties inseparable from the fresh conditions in remote places modified and affected the work done at home, but quietly and very slowly. It was all on the lines of peaceful, quiet evolution. But like a volcanic eruption came the world war, and at the end of it we find our peaceful, meandering paths torn up and distorted and the aspect of things totally changed.

As brave, reasonable men we have to face this and apply ourselves to meet the new difficulties. This eruption has certainly speeded up the change in the methods of Architectural Education. The change was coming, anyone with eyes could see it: the old system of pupilage was gradually developing into classes and schools, and in the course of years no doubt the old order would have changed into the new without trouble. Now, do not condemn the old system of article pupilage—it served its purpose well, and the older men amongst us who had the good fortune to be article to able and enthusiastic men can and do remember with gratitude and affection the kindly help received from our masters, and can call to mind how we gradually became their colleagues and how good it was now and again to meet old masters and old fellow-pupils at meetings or conferences, and so a most delightful comradeship was gradually built up. It is only natural that we should regret the passing of this dear old system, but growing numbers alone make a change inevitable.

If you look up Pugin's life you will find that in his time pupils were article for seven years, and had to live in the same house as their master, beginning the daily work at 7 a.m. Gradually the term of years grew less and at the same time voluntary classes came into being, and as these were the outcome of enthusiasm much good work was done for many years. Looking back I can call to mind that many men who have since made their mark, such as Sir Aston Webb and Leonard Stokes, showed in their designs in these classes just that little bit of extra go that is all the difference between ordinary and good work. And the volume of work done in these classes was tremendous. Remember, these men were working all day at the office of their master and had to prepare their designs in their spare time. We used to have a fortnight to prepare such things as a town church to seat 1,000—drawn to 1/2" scale, and the following fortnight for 1/2" scale details of the same. Glorious, enthusiastic days they were—the students worked hard and many men in active practice gave their time as Visitors to criticise and help the workers. Do you wonder that there is a natural regret that such times and manners have passed?

Gradually these classes were welded together into a system,

and it was found necessary to hold them during the day, and the R.I.B.A. form of articles provided that the master should allow the pupils time during working hours to attend them. Experience soon showed that this did not work well. Office time was broken, the school hours were scrappy, and I do not think it was a good thing for either master or pupil. This was the beginning of the pupilage system, and I have no doubt that in the future all Architectural Education will be by some form of University system, and, indeed, it must be if we want to be ball-marked by a degree or diploma without which no man will be allowed to practice. Whether this will result in better architects may be a matter of opinion—genius will out under most adverse conditions—but I think we may be quite sure that the general level will be raised to an appreciable extent, and that is all to the good.

This progress has been wonderfully accelerated by the war, and here in Manchester the University School of Architecture has had a great accession of numbers, in London the Architectural Association School has more than 200 pupils and spends something like £1,000 per annum in expenses of tuition, and no doubt a like expansion is taking place wherever there is some system of teaching. It is a glorious opportunity to these institutions, and it is our duty as architects to help in every way—not to stand aside because we remember past ways, but frankly to recognise the change that has taken and is taking place, and to see to it that we do all in our power to vitalise it. This vitalising is really the kernel of the whole matter, and it will be left to the University Professors entirely I hope we shall get a magnificent result—all turned out to one pattern—and I sincerely hope the various Schools will avail themselves of the help and counsel of such bodies as our own. Indeed, Manchester does so, and I trust in the future will do so to a greater extent, and the more such bodies co-operate the better it will be for architecture. Remember, after all, architectural design is a very personal matter, and the danger of academic training is to turn out students of one pattern. It is up to the Professors to see that this danger be avoided.

So I do truly welcome you students who not only go to the classes directed by our good friend Professor Dakin, but who have also joined our Society, and we will do our best to sun and you with that atmosphere of enthusiasm without which an architectural life is little more than drudgery for a very small reward. The future is yours, go ahead—spare neither pains nor time to excel—don't look upon us older men as old fogies, but think of us as fellow-members and friends ever willing to give you the benefit of a lifelong experience.

Now a word to those who have passed the pupil stage and are engaged in the serious practice of earning their livelihood by their work. Pupils you are not, but students you will or should be to the end of the chapter. How has the War affected us? Cast your mind back to the various presidential addresses during that weary period. At first, not really recognising how serious the matter was, we thought that in the full of business we should have time to read those various books on professional matters that we had neglected or skimmed only because we were too busy to give our minds to them. I wonder how many did so. Then we began to realise how serious things were for us—our pupils and younger assistants left us, voluntarily at first, then all those in had to go, our work was limited to £500 value by official orders, certain materials were forbidden us, labour began to be very scarce, prices rose, works were abandoned, bad news seemed always coming to us from land and sea, personal griefs at the loss of relatives and friends oppressed us, men had to give up their offices, food was restricted, and altogether we older men, debilitated from taking any active part in work or fighting, had a very bad time indeed.

But one bright spot in all the gloom was the fact that our Society never suspended its work—restricted it had to be, but we met regularly, held meetings, had papers, and were always taking counsel together to help those fighting for us, to help one another, and were all looking hopefully forward to the time when the War should cease, and we could resume our efforts to advance our profession. We realised that changes must take place after such an upset of all things, and tried hard to be prepared to meet the new conditions that would arise.

What an effort it was to be cheerful! We did not always succeed in being so, but we did try—and try hard. Further, we tried all we knew to get the Government to allow us to help in those matters we knew we were better fitted for than any body of men in the kingdom—the continual erection of factories, but it is to be regretted that we were utterly ignored and work that we had been trained to do on professional lives was put in the hands of amateurs, with the result that many millions were wasted in the erection of works, and we had to stand by and see the mistaken policy carried out, and also had to help to pay for it. It was one of the most bitter things of a very bitter time.

Then we turned to look ahead and prepare for matters that we felt must be faced in the future, and perhaps the most persistent one was the future education of the students when they returned. Generally speaking, our views in this direction were on right lines, and matters really seem to be doing more or less as we expected them to.

So I ask those returned men and the newer students to give kindly thoughts to those who did their very utmost to keep the Society really alive, and who had a very heavy and dismal burden to bear.

And now I come to the difficulties we all have to face—students, ex-soldiers, and older men alike. We expected changes and troubles, but I venture to think we never expected the wholesale hardship that is upon us. Previous wars have taught us that the first result was a great business boom which would give us all a chance to make up some part of the loss suffered in the past. But combinations of manna-tumults on one side and Labour on the other have brought about a state of matters without precedent; the world has seen nothing like it before—certainly the last few generations have not, and on all sides there is doubt and anxiety as to what may be the outcome of it all. So far as we are concerned the troubles have resulted in a terrible shortage of material, and when we get what is wanted it is so costly that we hardly dare state our comments what it will be the probable cost of erection. Beyond all this Labour not only demands much higher wages and shorter hours but all our experience shows that per head much less work is turned out. This unfortunate combination of circumstances must, if not checked, result in general stagnation, and although for a year or so there may be an appearance of prosperity in certain trades owing to the great profits the world shortage of goods gives rise to, yet the outlook for all is not good.

To take an instance to illustrate this great difficulty—the National Housing Scheme.

Your Council worked hard to do their very utmost for the members, to get them into active work on this crying necessity, and the Manchester Corporation responded to our efforts, with the result that a great many of you had before you the promise of good and very interesting work for some years. You responded also by going very fully into the problem, indeed many of you had been fitting yourselves by special study for this very purpose—with the result that you produced designs for many thousands of houses that would have made comfortable, artistic and interesting groups of homes. All seemed to promise well, but the combinations I referred to before have checked and hindered it to a remarkable degree, and now after about eighteen months of work very few houses have been erected, carefully thought out plans have been scrapped, and in desperation various untried methods have had to be adopted with accommodation cut down to the minimum, all artistic bits abandoned, and, above all, the prospect of rents raised to a height undreamt of, and that for property that may possibly be loathed and avoided in a few years by the very people for whom it is to be built or being built.

It is very depressing, and I am sure those members of our Society who have met in council almost every week to push this matter forward will have your sympathy. How it is to be remedied I know not, but am hopeful that the difficulty will, as in an extreme case of fever, burn itself out and so gradually bring all to a more reasonable state of mind. To judge from the past history of our British people this has generally been the case, and it is best to hope that through trouble and misery we shall reach a better state of affairs. We shall learn a good lot of it if we recognise the lessons taught us.

In other directions than housing, particularly in industrial work, which, after all, is the real foundation of the prosperity of our district, the war necessities have taught us a lot and we have learned how to meet difficulties in many new and striking ways, some of which will remain and modify both planning and designing to a very appreciable extent. On the other hand, new methods of producing goods will be much more usual in the future, and this again will cause changes on our side in our practice, and the man who will not get out of old grooves will be left behind in the race.

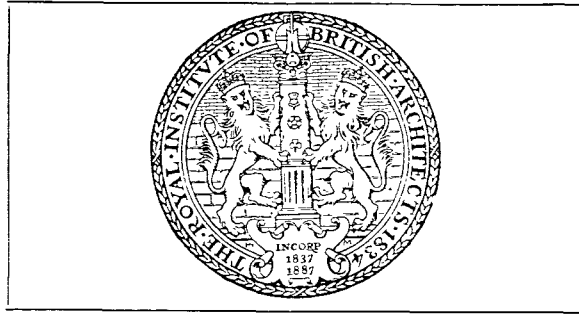
I have tried to point out combinations that have hindered and are hindering us, but there is another combination that will help us very greatly, and just at present promises to materialise after many years of trying to bring it about.

At present our profession is split up and consequently weakened, and the ordinary man looks upon an architect as a man following a profession that anybody can do, and, indeed, anybody does it without being trained and fitted for the purpose. This is bad, bad for the public, bad for the profession and bad for the public who suffer from ignorant practitioners. After many years of seeking for a remedy the general opinion seems to have crystallised upon registration as the best way to put our profession upon such a basis that the public will not be allowed to employ any man not registered, and this will be a good landing-off spot for the next forward move, namely that the public will not be allowed to build without employing the services of properly qualified men.

Recently the Royal Institute has managed to get together a representative body to press the matter forward—a body composed of some of their own members, members of affiliated societies, the Society of Architects, the Architectural Association, and even representatives of unattached architects and assistants. This large and influential committee is now fully conversant with the difficulties and hopes to find a way by which we may approach Parliament as a united body and so get the registration wanted. Hitherto it has been impossible owing to the divisions, and you cannot expect authority to give recognition to one society only and leave all others out. May this committee work harmoniously and gain for us the desired result. Many years ago the first step was taken by the provincial societies affiliating themselves with the R.I.B.A., and for long this relationship was a very loose affair—but the growing importance of the provincial societies has caused these bonds to be knitted much more closely and strongly, and we may be justly proud that the Manchester Society has been foremost in this process. Why? The reason is that we have been energetic and enthusiastic, and although a review of the troubles of the past few years and our present difficulties may give cause for depression, yet I am sure that if we keep up our enthusiasm to press forward the education of our students and do all we can as a body to help the progress of architecture, we shall after a while gradually rise to a much higher level than in the past.

The Church Beautiful.

The Bishop of Chelmsford (Dr. Watts-Ditchfield), opening recently an ecclesiastical art exhibition in connection with the Church Congress, said that the Church would have to keep pace with the growth of the love of the beautiful. Our boys and girls are being taught more than our fathers were—that they had eyes to see and minds to understand. In all modern schools there was everything to lead a boy or girl to grasp the fact that there was something beautiful in the world, and to try to understand its beauty. Recently he saw some books entitled *Art in Life*, issued by a well-known Labour leader for trades unionists. Such a thing was unknown forty years ago. The growth of the study of the beautiful would force the Church to be more careful than she had ever been before in the erection of her buildings and in the appointments of those buildings.



9 CONDUIT STREET, REGENT STREET, W., *Est. Nov. 1920.*

CHRONICLE.

The Opening Meeting.

There was a large attendance of members and their friends and several distinguished visitors present on the 1st inst. to hear the President's Inaugural Address of the Session. Among the guests of the Council at the dinner which preceded the meeting were the Earl of Crawford and Balcarres [*Hon. A.*], Lord Leverhulme [*Hon. F.*], the Dean of St. Paul's, Sir R. Anstruther, K.C.M.G., Sir Reginald Blomfield, R.A., Litt.D. [*F.*] and Lady Blomfield, Sir Lawrence Weaver, K.B.E. [*Hon. A.*], the Vice-Chancellor of the University of London, the Principal of King's College, Mr. Ernest Newton, C.B.E., R.A., the Master of the Brewers' Company, the Mayor of Westminster, Mr. Topham Forrest [*F.*], Architect to the L.C.C., etc. All were afterwards present at the Institute meeting. The President, who had only a few days before returned from the East, has greatly benefited by the sea voyage and was looking remarkable fit and well. He was warmly greeted on taking the Chair, and his Address was followed with manifest interest and appreciation.

The Civic Survey Exhibition.

A large and distinguished company assembled at the formal opening by Sir Aston Webb, P.R.A., of the Civic Survey Exhibition in the Institute Galleries at 3.30 p.m. on Tuesday, 2nd November. Invitations to the ceremony had been accepted by, among others, Sir George Frampton, R.A., and Lady Frampton, Lady Trustram Eve, Sir Ernest George, R.A., and Miss George, Sir Wm. H. Dunn, Sir Charles and Lady Ruthven, Major Barnes, M.P., and Miss Barnes, Mr. and Mrs. Raymond Unwin, and the Master of the Skinners' Company. There was a good attendance of members of the Institute, including Mr. H. V. Lanchester, to whose labours the initiation of the scheme was largely due,* and Messrs. C. Harrison Townsend, Louis Ambler, and C. W. Pitt, who filled successively the position of Assistant Director of the Greater London Survey.† There were also present several

* See Mr. Lanchester's Paper, "Civic Development Survey as a War Measure," *JOURNAL*, 9th January, 1915.

† The objects served by the Survey are described by Mr. Townsend in his Paper entitled "Civic Survey," *JOURNAL R.I.B.A.*, 1st April, 1916.

of the architects who had been employed upon the work.

The Chair at the opening ceremony was taken by Mr. Ernest Newton, C.B.E., R.A., who was President of the Institute when the Survey was started, and whose strenuous and sympathetic support during the entire period of the operations contributed materially to its success.

Mr. NEWTON, addressing the assembly, said:—Before asking Sir Aston Webb to open the Exhibition, I should like to give, very briefly, a history of the Civic Survey. It is difficult to recall to-day the feelings of dismay experienced by architects in the early weeks of the war. Work was stopped in every direction, and it was clear that something must be done to provide employment for some of our colleagues, so that they might have time to readjust themselves to altered conditions. It was an anxious time for those in official positions in the Institute, but I was fortunate, as President at that time, to receive the assistance and support of all my architect friends, and, having formed a special committee to deal with matters arising out of war conditions, we got to work at once. One of our first activities was the organisation of the Civic Survey Joint Committee, on which were representatives of the R.I.B.A., the Society of Architects, the Surveyors' Institution, the London Society, the Town Planning Institute and other bodies interested in the scheme. Mr. Lanchester, to whom we are largely indebted for the initiation of the scheme, acted as Hon. Director for Greater London. The work of organising in detail was in the able hands of Mr. A. R. Jemmett, who gave his whole time and energy to the scheme, and it is due to his self-sacrificing devotion that the work was carried on so successfully. It is to be feared that he did not give sufficient thought to his own health, and we have to lament his death, which took place on the 17th September, 1919. We also owe very much to Mr. MacAlister, Mr. Dircks (secretary of the committee), and to Mr. Harry Redfern, Mr. Harrison Townsend, Mr. Louis Ambler, and Mr. C. W. Pitt as Assistant Directors. Very valuable work was also done by Mr. C. F. A. Voysey, Mr. George Walton, and Mr. W. I. Dunford. Besides the centre in London, similar surveys were undertaken in S.E. Lancashire under Professor Abercrombie, and in Yorkshire under Mr. H. W. Chorley and Mr. W. H. Thorp. It was soon evident that, although we were able to collect substantial sums, it would be impossible to finance the scheme for any length of time. We therefore approached the Government Committee for the Prevention and Relief of Distress, and it was with their support that we were enabled to carry it out. I should like to take this opportunity of expressing our gratitude to Sir G. Murray, the Rt. Hon. Herbert Lewis, and other members of the Government Committee, and to Mr. Felix Clay, the Hon. Secretary, for their great sympathy and help. Altogether this committee

granted us £13,800. The R.I.B.A. gave the use of its Galleries, and gratuitous accommodation was also provided in the other centres. It is impossible in the short time at my disposal to give any clear idea of the scope and usefulness of this Survey. Roughly it may be stated that its object was to put in a graphic form which can be read at a glance a mass of information which would otherwise be buried in an ocean of print. This is the first time in this country that such a scheme has been attempted. Data covering the whole ground of a city's activities are recorded: methods of government, manufacturing and residential conditions, places for work and recreation, the incidence of health and disease, birth and death rates, traffic facilities, climatic conditions, and so forth. Town planning schemes in the past have often been elaborated without any clear realisation of the sociological and material conditions governing the site, or what is of equal importance, its environment. Diagrams of this sort would be invaluable to the Ministries of Health and Transport and other authorities having the care of cities, and it is much to be hoped that the work initiated by the Institute may be continued and kept up to date. During the progress of the work the Civic Survey created a great deal of interest and has been visited by H.M. the Queen, H.R.H. Princess Mary, and many distinguished people. Mr. John Burns was particularly struck by the usefulness of the work, which he considers is an invaluable contribution to municipal records. It is hoped that the Exhibition will be well attended, and that municipal authorities will see the advantage of adopting the methods so admirably outlined in the various diagrams. I will now ask Sir Aston formally to open the Exhibition.

SIR ASTON WEBB, P.R.A., C.B., K.C.V.O. (F): Ladies and Gentlemen. My task is a very easy and simple, and also an extremely pleasant one, namely, to declare this Exhibition now open. I hope that it will be largely visited and appreciated, and, above all, made use of. The work is extremely pretty to look at. A lady said to me just now, "It looks like violets there, and like azaleas there." (Laughter.) They do look like that, but that is not by any means the whole idea of the Exhibition: it is meant to be of some real use in the world. And, if I might, I should like to congratulate Mr. Newton on the successful. I do not know that I can say completion—but on the successful stage to which the work has been brought. I would also congratulate the Institute, because the great thing in this world is to do something. It is those people who do something who are of use. The Institute does a good deal of talking, but when it does anything like this, it is rendering service of incalculable value to the community, and I cordially agree that, to quote the printed paper I have in my hand, "a vast amount of valuable information has been accumulated, the results of labour quietly and conscientiously devoted to research and codification, and this ought not to be left to crumble and decay."

obscurity, particularly as human energy is awakening to the importance of future development." That, I think, is a very proper note of warning in connection with the work shown in this Exhibition, that it should not be allowed to fall away into obscurity and be forgotten: because this is only the beginning, only a small part of the work. I am not sure that each of these schemes is quite complete. If not, it is to be hoped that the Institute will complete them, and also that the County Council will come in and fill that blank space in the centre, which rather spoils some of our "flowers" on the wall. We ought all, of course, to work together with the municipal bodies and local authorities, and until that blank space is filled you cannot do what the whole object of these civic surveys is, to look at a place as a whole. The vastness, the hugeness of London makes it impossible to understand unless one sees it brought to some such scale as these diagrams, so that one may take in the whole at a glance. And then it is wonderful how simple and how easy it is to see what is most wanted in the districts represented. That is the object, I understand, of the various maps. One series, for instance, shows where disease has been prevalent. Then the local authorities who see those dark patches on the Fever plan will have their attention drawn to it, and it will be for them to look into it and try to bring their patch to as light a tint as the surrounding districts are. I am perfectly sure that if local authorities will only come and see these plans, it will have a great effect on bringing that about. The only aspect in which I have taken an active part was through the London Society, where we confined ourselves to making a plan showing the whole of the arterial roads existing and proposed in and out of London, showing also where it was deficient in parks, and suggesting parkways which might surround this enormous city of ours. A very reduced copy of the plan is shown in the adjoining room. Without taking undue credit to the London Society for what has been done, I may just mention, as showing the use of these plans, that while we were engaged in it we attended with other bodies before Mr. Asquith, the then Prime Minister, and said, "Will you take this matter up? Very soon the centre of London, the County Council area, will be surrounded entirely by town-planning schemes, and we shall be unable to get the main arterial roads running out of London through those new neighbourhoods, on the lines on which they should best go." We said, "We do not presume to say definitely that that is the exact line for the road, whether it is done now or later, but we do say the authorities should be given power to secure land so that that road originally decided upon may be made." Since the time of the Romans—and they made excellent plans of roads—until the time of George V., no road plan, until this one of the London Society, has I believe, been made in and out of London. Mr. Asquith was very sympathetic. He said, "I cannot appoint an authority on the spur of the moment—"

—of course we knew that it would probably take several years before any appointment could be made—"but you go to all the local authorities and get them to agree these lines of roads, and when you have done that, see me again." We did. We had conferences all round London with the local authorities. We told them, "We think this is the best line of road, and if you don't think so, perhaps you will tell us which it should be." They did this, and although in certain cases we did not entirely agree, still we got a general agreement about the lines of the main roads out of London. We then went to Mr. Asquith again. The war, however, had then broken out: Mr. Asquith could not attend to it, and it was referred to a Government Department. We were afraid that that would be the end of it. But, as you know, when the war ended, a Transport Ministry was started. We were afraid, again, that the railways would be their only concern and that the roads would be again overlooked. But that has not been so. A Road Department has been started—exactly what we hoped might be done. There is an excellent man, if I may venture to say so, at the head of it, and the roads are being looked after. I am assured that in regard to all town-planning schemes which now come before the Government, one of the first things they look at is whether they encroach on the lines of roads as laid down on the London Society's plan which is shown here. That is really a step in advance as regards roads. I do not think we shall get them all made, but we expected there would be unemployment after the war and that this would be an excellent opportunity for the employment of unskilled labour. And that, again, is being done, as we see by the papers: unemployed men are to be put to work preparing some of these roads. I mention that, not for the glorification of the London Society, but as some hope that this very much larger scheme of Civic Survey will also have an influence on the betterment of Greater London. One of the difficulties is that Greater London—and Central London for the matter of that—is tied up in water-tight compartments: and to get anything like a scheme and to get various authorities to agree, is an extraordinarily difficult matter. What we all want to see, and what is greatly wanted, is the Western Road, which includes the widening of Euston Road and Marylebone Road, which can easily be done by taking in the forecourts on both sides. This goes on very well through Wornwood Scrubbs, until it gets to the outline of the County of London, and then the next authority says, "We don't want your Western Road at all, we will not agree to it." And so for some years it has been stopped on that account. Those are the difficulties which present themselves, and which will, sooner or later, have to be overcome. It is important that the Institute should decide what is to be done with these maps and diagrams—where they shall go, and how they can be made constantly available. I am afraid you cannot reproduce them as easily as we have reproduced the London Society's plan. To reproduce your beautiful colours would be an enormous expense.

but don't give it up till you have found a use for it. Most of us have friends who have spent all their time acquiring knowledge but who lack the faculty of making use of it. Knowledge which is tied up in that way is of no use to anybody, and the Institute has to find some way of disseminating the knowledge acquired by the Civic Survey and of showing its importance. When once that has been done I feel sure you will find you will have any amount of assistance in completing these plans. This Exhibition, I may say, is quite free though I do not know that people think so much of things they do not pay anything for; often they do not. I would ask those present to make it known to anybody who is interested in these matters, and assure them that they will see a most beautiful set of plans. If they will only take the trouble to see what it is all about, they will acknowledge that the Institute has done a very great work towards the well-being and the civic beauty of the great city in which it is our privilege and delight to dwell. And not only in London: there are already similar efforts being made in Lancashire, in Yorkshire and elsewhere to the same end. There again at the London Society we found that a good many of the great towns of England have similar societies, they help to increase the interest of those who live in them, and remind them of their duty to do something towards the amelioration of the condition of the people, and for the beauty of the town in which they live. (Applause.)

MR. WALLER CAVE [F.]. I should like to move a vote of thanks to Sir Aston Webb for having so kindly come to-day to open this Exhibition.

MR. H. V. LANCHESTER [F.]. I have great pleasure in seconding the vote of thanks. The Institute is very much honoured by Sir Aston Webb's presence here to-day, and is grateful to him for the interesting explanation he has given of the work shown on these walls. I should like to supplement his remark about the blank space in the maps. The blank space was left because it was found that the London County Council had already done so much work in that area that it was difficult for the Civic Survey to do their own work in with it. The County Council would have no difficulty, by adding further data, in filling in the blank space and so making the maps and diagrams complete to the centre.

The vote was carried by acclamation, and was briefly responded to.

Sheffield's Civic Survey.

The special correspondent of *The Times* at Sheffield, in the issue of the 28th October, pays well-deserved tribute to the municipal authority of that city for the excellence of its service in various departments of civic activity. Its latest claim to distinction, he says, is that it is the first municipality to conduct its own civic survey, and last week at the Town Hall there was thrown open to inspection a large number of plans and diagrams which have been drawn up as a groundwork upon which development plans for the future should

be based. This exhibition, which is the result of work undertaken for the Corporation by Professor Abercrombie, of Liverpool University, is profoundly interesting. Describing the exhibits, *The Times* contributor says:

Contour maps show the difficulty of road improvement in the city and of making ring roads connecting the outskirts, and the compensating advantages of the healthy barrier of hills which prevents it being entirely surrounded by industrial development, reduces congestion in the streets, and minimises the cost of road construction and repair by winning off traffic merely passing through on its way to some other centre. Large scale plans of the centre of the town show how the different industries group themselves together in certain fairly well-defined areas, and it is suggested that powers should be acquired to regulate to some extent the use to which these areas shall be put after the demolition of houses. The question in which the works are extending will also have to be considered in connection with the provision and placing of play grounds. One plan of the streets is designed to show that shops follow the pedestrian and tram routes, that the best shops are where these routes coincide, and that where they divide the shops are along the pedestrian route. Another street plan indicating the position of leased premises will make it easy in considering road widening schemes to decide which side of a street it will be cheaper to work upon.

The plans dealing with housing are very instructive. One shows the back-to-back, or, as they are called here, antediluvian houses, which date back to the days before the great flood in 1864, no permits for reconstruction of this type having been issued since. Another shows in different colours the houses described as in bad condition, "poor," "fair," and "good," a third suggests the way in which they should be dealt with, different colours indicating "demolish," "convert," "improve," and "no recommendations," and a fourth shows in colours the degree of urgency for the carrying out of the recommendations, whether at once or in one of five periods, the length of which in existing conditions with regard to housing are not defined.

Some of the maps and diagrams are pitiless in showing the conditions in Sheffield at their worst. It is shown, for instance, that in the district where many of the works are situated the density of the population is much greater than it seems. In the whole area of 73 acres the average was 75.5 persons to the acre, by marking off the works area it is shown that the housing area is really 19 acres, with an average of 282 persons per acre. Health diagrams drive home the lesson that the presence of large works tends to increase the death rate. A contour map, based on smoke statistics, shows how the various districts are affected. In this it has been accepted that industrial smoke does not generally rise above the 300 ft. contour. The sites of the various housing schemes in Sheffield are shown on this map.

In these plans and diagrams, which I was afforded an opportunity of examining to-day, a mass of information collected by the various departments of the Corporation has been embodied, illustrating from different points of view the present condition of the town in a form which will be most helpful to those engaged on reconstruction or development schemes.

Road Scheme accepted by L.C.C.: Work for Unemployed.

The London County Council at their meeting on the 26th October decided, on the recommendation of the Special Committee on Unemployment, to accept the Government's arterial road proposals, subject to the obtaining by the Government of any necessary statutory powers to enable the Council to obtain immediate possession of land or other property.

It was further resolved, on a special report of the Improvements Committee, that on the undertaking of the Government to pay at least 50 per cent. of the cost, the Council was prepared to begin construction of the Eltham "by-pass" road, which is intended to relieve the Maidstone Road where it passes Eltham. The Woolwich Borough Council will be asked to carry out the work on the County Council's behalf.

Particulars of the new roads were given in the last issue of the JOURNAL, p. 499.

Architects and the Unemployment Act 1920.

Enquiries having been made at the Institute as to the position of architects under the Unemployment Act 1920, the opinion of the Institute solicitors, Messrs. Markby Stewart & Co., was asked upon the following point—Whether architectural apprentices who receive pay and architectural assistants who are paid not more than £250 a year come under the scheme of compulsory insurance provided for in the Act. The solicitors reply as follows:—

"We have now considered the point raised in your letter and call your attention to the provision of the Act that: 'All persons of the age of 16 and upwards who are engaged in any of the employments specified in the 1st Schedule, Part 1, not being employments specified in Part 2 of that Schedule, shall be insured, etc. (Section I.).'

"Part 1 of Schedule I. defines 'employments within the meaning of the Act,' and speaking generally, and we think sufficiently for your purpose, employments must be (1) in the United Kingdom, (2) under any contract of service or apprenticeship.

"The 'excepted employments' mentioned in Part 2 of the 1st Schedule *include* (a) Employment under any Local or other Public Authority, Railway Company or Public Utility Company or (b) employment in which the persons are entitled to rights in a Superannuation Fund established by or in pursuance of an Act of Parliament for the benefit of persons in that employment, where (in all cases) the Minister of Labour gives the Certificate referred to in clause (d). This might possibly include an architectural assistant in the service of one of the bodies referred to, or entitled to rights in such a superannuation fund as above mentioned.

"The 'excepted employments' also include:

"(b) Employment otherwise than by way of Manual Labour and at a rate of remuneration exceeding £250 a year or in cases of part time service at the equivalent of that rate. This clause (b) shows that an architect's employees (not being manual workers) who are paid not more than £250 per annum (or not exceeding that rate) must come under the Scheme of Compulsory Insurance.

"Section 3 of the Act provides a process by which the Minister of Labour may grant Certificates of Exemption from liability to become or continue to be insured under the Act, in cases where any employed person proves that he is in receipt of any pension or income of the value of £26 or upwards which does not

depend on his personal exertions, and other less common cases mentioned in the section. So that it would appear that a non-manual employee receiving less than £250 a year but possessed of a house assessed at £26 or more will be able, if he chooses, to get exemption.

"It might be well to point out to you that Section 18 of the Act provides the machinery for 'contracting out' in cases where a 'special scheme' is established for 'any industry.' We understand that this is the section under which the Ministry have power to approve or make a special scheme which, for instance, might apply to architectural clerks as a body, and if and while such a special scheme is established all employees and insurable persons in that calling will be under this special scheme (compulsorily) and not under the general scheme of the Act.

"It is to be remembered that the contributions to be made by the employers are payable not only in respect of insured persons but also in the case of persons exempt under the provisions of Section 3 (see Section 5, sub-section 7). But we do not suppose that exemption certificates will be numerous.

"Contributions will not be payable in respect of any person who is in receipt of an Old Age Pension."

Franco-British Conference on Architectural Education.

In the September issue of the JOURNAL a brief announcement appeared of the Franco-British Conference which it had been arranged to hold at Paris to discuss the revision of present method of architectural education in order to give students a better practical training and more adequate equipment for the profession of architecture. The Conference has been organised by the R.I.B.A. and the Société des Architectes Diplômés, and will take place on the 12th and 13th November. The function will be inaugurated by the reception of delegates by the President and Members of the French Committee at 10 a.m. on the 12th November. The remainder of the day will be devoted to the reading of Papers as set out in the following time-table:—

10.30 a.m. "The Training Programme of the Ecole des Beaux-Arts," by M. Jules Godefroy, Government Architect, Member of the Conseil Supérieur de l'Enseignement de l'Ecole des Beaux-Arts.

11 a.m. "The Relations between British and French Architects," by Mr. John W. Simpson, Membre Corr. de l'Institut, President R.I.B.A.

11.30 a.m. "Architectural Training in Great Britain," by Mr. Paul Waterhouse, F.S.A. [F.].

2.30 p.m. "The Work of the Architectural Association Schools," by Mr. H. Robertson, S.A.D.G.

2.45 p.m. "The Work of the School of Architecture, Liverpool University," by Professor C. H. Reilly, M.A.

3.30 p.m. "The Work of the Schools of Architecture of Scotland," by Mr. A. N. Paterson, A.R.S.A. [F.], President of the Institute of Scottish Architects.

On the 13th November the French and British Conference Committee will meet at 10 a.m., and at 11 the Ecole des Beaux-Arts will be visited by the

British delegates. At 12.0 members of the Conference will be the guests at luncheon of the President and Council of the Société des Architectes Diplômés. After lunch there will be an informal discussion on the following subjects:—

- (1) The Educational Value of the Study of Old Work.
- (2) The Business Training required by an Architect.
- (3) Training in Town Planning and Civic Design.
- (4) Possibilities of Co-operation in Architectural Training.

The British arrangements for the Conference are in the hands of Mr. Arthur Ken, Hon. Secretary R.I.B.A., and Lieut.-Col. Carl de Lafontaine, O.B.E. [A.], Hon. Secretary of the Conference Committee.

Preservation of our Cathedrals and Churches: The Church's Trust.

In the House of Lords on the 27th October Lord Parmoor moved "that this House is of opinion that an Advisory Committee,* with power to consider the condition of cathedrals and churches, should not have been appointed without consultation with the Church authorities and without some proof that the provisions for the protection of cathedrals and churches which have prevailed for centuries have proved inadequate; or that the Church has in any way failed in her sacred trust towards these buildings."

Most lay Churchmen, said Lord Parmoor, regarded this as the first step in an endeavour to bring within official control the supervision of buildings dedicated to religious purposes. The possibility of placing buildings of that character in official hands was one that ought not to be entertained. He could find no reason whatever for this proposed extension of bureaucratic action, which was in itself most regrettable. Their churches and cathedrals would become a sort of fighting ground for architects and archaeologists. In the letter which he received from the Office of Works on 4th October, in reply to his inquiry for the reasons why the proposal for an Advisory Committee was made, Sir Lionel Earle assured him "that there is a widespread feeling among archaeological savants that if Parliament thought it necessary, as it undoubtedly did, to ensure some measure of protection for national monuments, how much more important is it that some measure of protection should be given to the far more important national buildings, such as the great cathedrals and some of the more important churches." To a plea of that kind he could oppose the practically unanimous feeling of Churchmen in this country against the introduction of official interference with their sacred duty in regard to the restoration and control of these buildings. The National Church Assembly was meeting for the first time in November. If they had a body of that kind, was it thinkable that they should appoint such an Advisory Committee without any chance of consultation with it?

The Archbishop of Canterbury said the surprise with which he read in the Press that this Committee had been appointed was not in the least due to the fact that interest should be taken by the whole nation in the care and custody of our ecclesiastical buildings, which were of absolutely priceless and incomparable value, but because he had never heard a word about it, although it was dealing with a subject with which his responsibilities were largely concerned, and which they had been handling with the most constant and prudent care for many years past and in the most public way possible. His question was, why should they need the

Committee at this moment to deal with this problem? There was no allegation that the problem had been left untouched by the Church for a very long time past, and that it was high time for someone else to step in and do something. As soon as the Committee was appointed it plunged into the middle of something that was at that moment going on in another way. Before the War this subject was much before the public and before the Church, and in 1913 the Archbishop of York and himself appointed a committee to look into the whole question, who produced a long and elaborate report with a number of recommendations. That report was considered by Committees of Convocation, both at Canterbury and York, and debates took place. Meantime, the War was at its height, and the idea of obtaining Parliamentary sanction for some of the proposals was out of the question. The idea of building operations was not only undesirable, but practically impossible. It was quite obvious that the moment was inopportune for dealing with the matter. But things had not been allowed to slumber. Some of the recommendations required no Parliamentary sanction, and they could be carried into effect. Everything was done to show that action was being taken on the subject in the various dioceses. He contended that upon this subject the Church had of late years taken the greatest possible care of the matter, and the views of archaeologists and historians had been carefully weighed. He did not want or need a committee, as all that was necessary was being done by the Church. If it could be shown that it was not being done, then he would agree to the Committee. In the circumstances he did not propose to nominate to the Committee.

Lord Stuart of Wortley argued that the best course to pursue was that—of which long experience had been gained—of the Church authorities voluntarily resorting to the best advice obtainable. If the alternative was to be resort to the archaeological savants of the Office of Works, he would remind their lordships that the condemnation by that Department of the New Scotland Yard buildings at the time of their erection was itself condemned by nearly every architect and artist of distinction.

The Earl of Lytton, replying for the Office of Works, said it was not from discourtesy that he did not follow the arguments which had been used, but because they struck him as being irrelevant to the motion. What the Government had done was to appoint a Committee to advise the First Commissioner, first, on the question of amending and strengthening the Ancient Monuments Act. He was surprised that it should be made a ground of complaint that the Committee had been appointed without the First Commissioner having overwhelming proof that the existing provisions for the protection of cathedrals and churches were inadequate. No allegation had been made that the Church had failed in her sacred trust; but he saw no reason why those responsible for ecclesiastical buildings should not have taken a course similar to that which, when he was at the Admiralty, he agreed to take in regard to certain British hospitals—that was, to regard the hospitals as buildings of such importance that they should be treated as ancient monuments and not be altered structurally without consultation with the Office of Works. It was not his business to forestall the Committee's report, but the motion of the noble lord was one which no Government could accept.

Lord Phillimore said churches and cathedrals were only ancient monuments in a very secondary sense. These sacred buildings should be fitted for the use of the present time, and not hampered by any official.

Earl Beauchamp assured Lord Parmoor that it was exceedingly wide of the mark to conjure up visions that the Advisory Committee would recommend legislation the effect of which would be to take away the control of the cathedrals and churches from the Church of England.

The Earl of Selborne described the action of the Office of Works as utterly discourteous to the authorities of the Church of England, whose sole property these buildings

were, and as greatly presumptuous. The appointment of this Committee was, in his opinion, the first step in a deliberate policy of eventually securing to the Office of Works the same control as it had now over the preservation of ruins, and to the First Commissioner some *locus standi* where he had none whatever at present. This was not a Cabinet matter. He doubted whether the noble earl who had replied for the Office of Works ever heard of the appointment of this Committee until he read it in the *Times*. It was a Departmental blunder.

The Earl of Crawford hoped their lordships would be convinced that if there had been any oversight there had been no intention of discourtesy to the Church or conspiracy against it. This was no new matter. It had been discussed for twenty years whether Church and secular buildings were more likely to be handed down unimpaired to posterity if they remained in the hands of small groups or individuals than if the voice of Parliament or a Department of the State were allowed to intervene. He would like to hear the evidence in favour of the divergent views, and he did not think it necessary to pass a vote of censure on the Government for appointing a Committee to advise them concerning the subject.

Lord Parmoor said his motion implied no censure of the Government for the appointment of the Committee in so far as its duties had relation to secular buildings.

On a division the motion was carried by 27 votes against 17—majority 10.

The Uplifting Influence of Beauty.

Speaking recently at the opening of the Liverpool Autumn Exhibition of Modern Art, Mr. John Galsworthy said that art was the only really progressive spiritual uplift of human life. There could be no social evolution of any use, he declared, which was not grounded on the increase and diffusion of the sense of beauty. We talked of the uplifting influences of output and of production, trade and industry. He did not deny their value, but it was time we pondered more seriously on the real object of civilisation. Beauty and dignity of human life should not be left to a tiny section of the population. If we were brought up to it a vast proportion of us could appreciate beauty—an appreciation which underlay all national improvement and social reform. At present the arts were railed off; the public poked huns at them at the end of its umbrella, and watched their antics. There was a disposition now among Labour leaders to ask that beauty should be brought into the lives of the people. That was a good sign, for it was the first need of every country. In an age which tended more and more to make a god of blind production it was essential that the beauties of art should lead to the eye. Of old the best artists were employed to decorate the monasteries and churches which people then frequented. Why could not the best painters and sculptors to-day be asked to decorate the schools, colleges, hospitals, theatres, museums—yes, even the public houses, the clubs and the railway stations? We wanted more real beauty where we could all see it every day. If we went on blindly producing without cultivating the instinct for beauty we should go steadily downhill. And if we did not improve our conception of the dignity of human life we should head straight for another world war.

The Building Industry: Employment of Ex-Service Men.

In pursuance of the policy of pressing forward house building and employing ex-Service men thereon the Government, it is stated in *The Times*, have approved of certain big housing schemes, which are to be started almost immediately. At least one of these will be in London.

Contrary to persistent statements by opponents of the employment of ex-Service men, there will be no "sweated" labour, as the men will receive the district rates of pay.

In undertaking these schemes the Government are very far from wishing to irritate trade unionists, for it is recognised that where the new men, who are to be classed as "adult apprentices," are employed the success of the experiment can only be secured by the co-operation of the union men, who will have to instruct the recruits.

The question of guarantees against unemployment demanded by the conference of building trade operatives at Manchester last week is being carefully considered by the Ministry of Health. There is, however, a large consensus of opinion, not confined to official circles, that such guarantees are quite unnecessary, there being no prospect of slackness in the building trade for years to come. If the situation would be eased by the giving of such a guarantee, the Government would not be running any grave risk in giving it.

In Scotland and other parts of the United Kingdom no demand for guarantees has been put forward.

The trade is divided on the subject of taking on the ex-Service men. The bricklayers and carpenters are hostile, while plasterers, masons and slaters are adopting a more benevolent attitude. Certain unions have even passed resolutions in favour of admitting them.

To remove the fear of unemployment among building operatives, it is pointed out that 450,000 more working-class houses require to be built in order to meet the present deficiency. In addition, the annual shortage of houses is estimated at 100,000. Then there is the question of slum clearances, while an enormous amount of construction is required for commercial purposes, part of which is held up under the powers given to stop "luxury" building. Finally, there is "luxury" building itself. Moreover, there is the great amount of building labour required for repairs.

Fuel Research Board's Work: "The Coal Fire."

H.M. Stationery Office have published for the Department of Scientific and Industrial Research a report entitled *The Coal Fire*. [Fuel Research Board, Special Report, No. 3], which describes the work carried out by Dr. Margaret Fishenden in connection with a research into domestic heating: the investigation was directed by the Air Pollution Advisory Board of the Manchester City Council, and grants-in-aid of the work have been made by the Research Department. The investigation into the efficiency of open fires has yielded a collection of carefully ascertained data from which it is believed that a new departure can be made in dealing with the whole question of the use of coke and other forms of smokeless solid fuel in domestic fires.

The Alexander Thomson Travelling Studentship.

This Studentship (value £75: also possible second prize of £25), which is competed for every third year, is open to architectural students between the ages of 19 and 34 years residing in the United Kingdom and qualified as described in the Deed of Trust. The Studentship was founded for the furtherance of the study of Ancient Classic Architecture as practised prior to the commencement of the third century of our era, and with special reference to the principles illustrated in the works of the late Alexander Thomson. The subject set for the next competition is "A Temple of Memory," drawings to be sent in by the 15th April, 1921. The memorial is primarily intended to be non-sectarian in character and to commemorate both the sacrifice of the fallen and the victory attained. The conditions and regulations, with plan of site, may be obtained from the Secretary to the Trust, Mr. C. J. MacLean, 21, West George Street, Glasgow.

COMPETITIONS.

Gateshead War Memorial.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competition, because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

By order of the Council.

IAN MACALISTER, *Secretary*.

Llandudno War Memorial.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competition are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the Competition.

King's Own Yorkshire Light Infantry: Proposed Memorial in York Minster.

The Assessors of this Competition, Mr. Walter Tapper [*F.*], Mr. H. V. Lanchester [*F.*] and Mr. Robert Atkinson [*F.*] have examined the thirty-one Drawings submitted, and their award is as follows:—

Placed First.—No. 6. Mr. Chris. F. Annels & Voysey.
Placed Second.—No. 7. Mr. T. Frank Green. Twenty-five Guineas.

The following are bracketed equal and awarded Fifteen Guineas each:—

No. 15. Mr. Wilfrid Bond.
No. 11. Mr. Clement W. Jewitt.
No. 25. Messrs. Leonard Stokes, Drysdale and Aylwin.
No. 29. Messrs. Whitewig, Reynolds and Hill.

21st October, 1920.

The Drawings were on exhibition in the rooms of the Society of Architects, 28 Bedford Square, W.C.1, from the 1st to the 6th November.

OBITUARY.

The late Thomas Lennox Watson.

Glasgow has lost an architect of note in Mr. Thomas Lennox Watson, who died on the 12th of last month, in his seventieth year. He had retired from business for some three years. After a period of training with Alfred Waterhouse, he began practice in his native city, and there most of his work has been done. From the first he took an active part in local affairs, public and professional. By 1895 he was President of the Glasgow Institute of Architects, and for years a member of its Council, a very successful exhibition of metal work promoted by the Institute owed much to his efforts. He became a Fellow of the R.I.B.A. in 1884, when provincial interest in the Institute rather languished, and was able to awaken in others a sense of its claims; in 1917 he joined the class of Retired Fellows.

The influence of his master, Waterhouse, is evident in such early work as the Philosophical Society's Rooms, Bath Street, and, in lesser degree, in Adelaide Place Baptist Church just adjoining; a classic of style but with some details of a Lombardic character. Victoria Baths, Butterbiggins Road, too, in Revival Gothic, but the manner passed, and Hillhead Baptist and Wellington United Free Churches are quite academical, the latter in its south front a minor Madeleine. He built several large Board Schools, the Adelphi, on the south side of the river, is perhaps the first of the central hall type. St. George's Road School, and Garnerbank. The last is contiguous to an important block of shops and flatted houses in Sauchiehall Street built some time after, during the short period of a partnership with Mr. Henry Mitchell. The premises in St. Vincent Place of the *Glasgow* evening newspaper, in the style of the Renaissance of the Low Countries, and offices in Bath Street, are among his public buildings. The four last, it may be noted, are of red sandstone, marking the exhaustion of the white variety, until then almost exclusively employed for Glasgow frontages. Of domestic work, a hydropathic at Kilmacolm, a West-end mansion in Great Western Road, and the clubhouse of the Royal Clyde Yacht Club at Hunter's Quay, with adjoining hotel, are examples; the house and club have half-timber work in their upper storeys, and the latter was won in competition, a form of professional activity Mr. Watson had his full share of, but not with much success.

His connection with E. L. Watson, the well-known naval architect, brought him commissions for quite a number of yacht interiors, the *Meteor* for the German Emperor, and the *Mohican*.

Keenly interested in various civic questions and forming opinions of his own, in their support he was a pertinacious controversialist. The city's cross-river traffic engaged his attention for long, and to the last. His solution was a fixed high-level bridge in opposition

to a swing or lifting, and this he advocated by public discussion, letters to the papers, and pamphlet, gaining the adhesion of the Glasgow Institute of Architects to his project and overcoming the objections of some opponents.

Earlier he had begun a study of the vault of the Lower Church of Glasgow Cathedral, and to this he devoted much time, and when his conclusions were formed with characteristic vigour he made them known. His contention was that the central aisle vaulting, of quite unusual intricacy, is an emendation and advance on the original design that but continued the ordinary quadrupartite panels of the north and south aisles that still remain. This surmise was combatted by Dr. P. Macgregor Chalmers with vigour, but none can question Mr. Watson's very original and ingenious argument, as presented with persuasiveness and cogency in the monograph on the subject he published in 1901, valuable to archæologists generally, who can on the published evidence form their own opinion. The large book was followed by a pamphlet edition.

Turning his attention to concrete construction for small dwellings, he took out patents for hollow-wall and for monolithic construction, where the wall is formed on the horizontal and erected as one piece. This method he had quite recently put in practice in a cottage built at Kilbirnie: the walls, after hardening on the flat, were raised to the vertical with little exertion in one and a half hours.

With his juniors of the local Architectural Association he was always sympathetic, and helpful with Papers—one on Acoustics was particularly valuable: with his apprentices he read Viollet-le-Duc before the American translation had appeared of the chapter on "Construction." For many years he was a Governor of the Royal Technical College, and took a leading part in the formation of the School of Architecture that superseded the former separate architectural courses of the College and the School of Art. The work he had last in hand was the war memorial for the college, in conjunction with the sculptor, Mr. Killock Brown.

Mr. Watson is survived by his widow.

A. MCGIBBON [A.].

The late John Dixon Butler [F.].

We regret to announce the death, in his sixtieth year, after a brief illness, of Mr. John Dixon Butler, Architect and Surveyor to the Metropolitan Police and Police Courts. After about 15 years in general practice, during part of which time he acted as Surveyor to the Metropolitan and City Police Orphanage, Mr. Butler was appointed Architect and Surveyor to the Metropolitan Police in October, 1895, and completed 25 years' tenure of this post two days before his death. He was elected a Fellow of the Institute in 1906. During his career Mr. Butler was responsible for the design and erection of upwards of 200 police buildings, including police courts, police stations, blocks of flats for married officers and

section houses for the accommodation of single officers, and in every type of building he introduced a large number of improvements. Among his larger works may be specially mentioned the new Police Courts at Great Marlborough Street, Old Street, Tower Bridge, Clerkenwell, Greenwich, Woolwich and the reconstruction of Westminster. The rebuilding of Thames Police Court, for which he had prepared designs, is now about to be taken in hand.

ARCHITECTS' AND SURVEYORS' ASSISTANTS' PROFESSIONAL UNION.

LIVERPOOL BRANCH.

The members of the Liverpool Branch of this Union, by the kind permission of the architect, Mr. G. Gilbert Scott, A.R.A. [F.], paid a visit on October 30th to the Liverpool Cathedral works and site. The party were greatly interested in all they saw, and doubtless took away with them sundry ideas of planning and design that will stand them in good stead in the carrying out of schemes of a very much less pretentious nature that they may be associated with in years to come. The vastness of the scheme is shown by the following figures:—

	Feet
Length of building as designed	561
Length of Lady Chapel	100
Total length	611
Length of portion now being built	300
Height of Chancel	116
Width of Chancel	47
Height of Arch of Central Space	62
Width across Chancel and Aisles, inside measurement	86
Length of Chancel	152
Great East Window, 76 feet high and 36 feet wide.	

The foundation-stone was laid by the late King Edward on July 19th, 1904, and the Lady Chapel consecrated on June 29th, 1910.

During the visit it struck me what a great opportunity presented itself for starting a fund to defray the cost of building the central tower above the central space as a memorial to those who gave their lives in the Great War so that those living and future generations might live in peace. What more fitting memorial could be erected!

FRANK A. JAMIESON, *Licentiate*,
Branch Hon. Sec.

METROPOLITAN BRANCH.

The Programme of Social Events to Christmas, 1920, is as follows:—

Saturday, 13th November.—A dance at the Portman Rooms, 7.30 to midnight. Tickets 9s., or 17s. for double ticket: refreshments inclusive.

Saturday, 27th November.—A visit to the Soane Museum, at 2.30. Party limited to 25. Members and Probationers only.

Saturday, 4th December.—A visit to the Tate Gallery, at 2 o'clock. Party limited to 30, conducted by Guide Lecturer. Meet in Entrance Hall.

Saturday, 11th December.—Whist Drive at the Cabins Restaurant, Caxton House, Tothill Street, Westminster, at 7.45 for 8. Tickets 5s. including refreshments.

A remittance must accompany all applications for Dance and Whist Drive tickets, which can be obtained from the Hon. Sec., Social Sub-Committee, A.S.A.P.U., 33, Tothill Street, Westminster.

Wren's Threatened Churches.

The Guildhall Librarian has organised a silent protest against the proposal to demolish a number of the City churches by organising a little exhibition of old and modern views of those which have been marked down for demolition. All the views, which may be seen in the hall leading to the library, have been taken from the Corporation's rich collection of Londoniana. The engravings number about 50, and there are some excellent photographs, with interior views and details. The Churches of St. Dunstan-in-the-East and St. Dunstan-in-the-West, St. Botolph, Aldgate (of which there is a view dated 1740), St. Anne and Agnes, St. Vedast, St. Mary Aldermanbury, St. Nicholas, Cole Abbey, and St. Michael, Cornhill, are particularly well displayed.

Royal Academy Lectures

Principal A. P. Laurie, F.Sc., Professor of Chemistry in the Royal Academy, is delivering the following course of lectures at the Royal Academy on the dates mentioned:

1. *Wed., Nov. 10.*—Methods of Painting as illustrated by magnified photographs of the brush work of Romney and Hobbema and other portrait and landscape painters
2. *Thurs., Nov. 11.*—Modern Pigments: their proper Selection and Use.
3. *Fri., Nov. 12.*—Painting Media: Oils, Varnishes, and Tempera.
4. *Mon., Nov. 15.*—Methods of Wall Painting.
5. *Tues., Nov. 16.*—The Theory of Colour and its Application to Painting.
6. *Wed., Nov. 17.*—The Nature and Properties of Building Materials, new and old

MINUTES.

At the First General Meeting (Ordinary) of the Session 1920-21, held Monday, 1st November, 1920, at 8.30 p.m.—Present: Mr. John W. Simpson, *President*, in the Chair: 45 Fellows (including 15 members of the Council), 49 Associates (including 3 members of the Council), 7 Licentiates, 1 Hon. Fellow, 2 Hon. Associates, and numerous visitors—the Minutes of the Meeting held 7th June were taken as read and signed as correct.

The President delivered the INAUGURAL ADDRESS of the Session.

On the motion of the Right Hon. the Earl of Crawford and Balcarres [*Hon. A.*], seconded by the Very Rev. W. R. Inge, D.D., Dean of St. Paul's, a Vote of Thanks was passed to the President by acclamation.

The President having expressed his acknowledgments, the proceedings closed and the Meeting terminated at 10 p.m.

NOTICES.

Election of Members, 3rd January, 1921.

Applications for election as Fellow have been received from the following Licentiates who have passed the qualifying examination. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 29th November 1920:—

- ADKINS: JOHN STANDEN, 8 Montague Road, Richmond Hill, Surrey.
 ARMOUR: JOHN, Bridgegate, Irvine, Scotland; Smith-hall, Irvine, Scotland.
 BARKER: ROGER BRADLEY, Town Hall, Wolverhampton; 62 Compton Road, Wolverhampton.

- BLAIN: WILLIAM JOHN, 144 St. Vincent Street, Glasgow; 11 Lauderdale Avenue, Newlands, Glasgow.
 BRUNTON: FREDERICK SEPTIMUS, Electrical Federation Offices, Holborn, W.C.; 39 Twickenham Road, Teddington.
 CAVE: AYLWIN OSBORN, "Tidyford," Letchworth.
 CHURCH: ARTHUR HAROLD, J.P., 16 and 17 Devonshire Square, Bishopsgate, E.C.2.; Inghenook, Wavertree Road, Woodford, E.18.
 CRANE: LIONEL FRANCIS, 94 Church Street, Kensington, W.8.
 DANIEL: THOMAS BRAMMALL, Blackwall Yard, E.14.; Ventnor, Chislehurst, Kent.
 DOLMAN: WILLIAM LEDSHAM, Crescent Road, Windermere; Bleak House, Windermere.
 DURLACHER: ALEXANDER PERCY, A.M.I.C.E., F.S.I., 15 New Bridge Street, Ludgate Circus, E.C.4.; 67 Parliament Hill Mansions, N.W.5.
 DURST: ARSTIN, M.A. (Cantab.), 3 Raymond Buildings, Gray's Inn, W.C.; Dent House, Bushey Grove Road, Watford.
 ENGLISH: CHARLES WILLIAM, 36 Mecklenburgh Square, W.C.1.
 EWEN: ARTHUR JOHN CLIFFORD, 24 Coleman Street, E.C.2.; 8 Champion Grove, Denham Hill, S.E.5.
 GALE: ERNEST SEWELL, 15 New Bridge Street, E.C.; 101 Sutton Court, Chiswick, W.4.
 GARLICK: FRANCIS JOHN, 21 Lombard Street, E.C.3.; 40 Windsor Road, Church End, Finchley, N.3.
 GASKELL: PETER, J.P., Albert Chambers, 11 Cair Lane, Hull; Inglewood, Newland Park, Hull.
 GRUNDY: SAMUEL, JNR., Central Buildings, Ulverston; 2 Richmond Terrace, Ulverston.
 HALL: JOSEPH LOCKWOOD, Public Works Department, Cape Town, S. Africa.
 HENDERSON: HAROLD EDGAR, P.O.Box 80, Nairobi, Kenya Colony, British East Africa.
 HIGNETT: CECIL HORACE, Norton, Letchworth, Herts.
 HOLTON: EDWARD GIBBS, Holt, Norfolk.
 HOUSTON: JOHN ALFRED TAYLOR, Office of Public Works, City Chambers, Glasgow.
 HUXLEY: WILLIAM SHERRIN, M.C., Kuala Lumpur, Federated Malay States.
 JERDAN: JOHN, 12 Castle Street, Edinburgh; 125A Prince's Street, Edinburgh.
 JONES: HUGH GRIFFITH, 410 Drummond Building, Corner Peel and St. Catherine, Montreal, Canada.
 JONES: RONALD POTTER, M.A. (Oxon), 7 Stone Buildings, Lincoln's Inn, W.C.2.; 13 Hornton Street, Kensington, W.8.
 LONGDEN: REGINALD THELWALL, York Chambers, Stoke-on-Trent; High Barn, Ladydale, Leek, Staffs.
 LUNAN: THOMAS MELVILLE, 209 St. Vincent Street, Glasgow; 40 Belmont Gardens, Glasgow.
 MAGGS: LEONARD, Shire Hall, Nottingham; Radcliffe-on-Trent, Nottingham.
 MALCOLM: ALEXANDER NISBET, 76 High Street, Falkirk; Arthursden, Polmont, Stirlingshire.
 MILLAR: THOMAS ANDREW, 9 Blythswood Square, Glasgow; 16 Kew Terrace, Kelvinside, Glasgow.
 NICHOLLS: WILLIAM HENRY, Consulting Architect to the Government of Madras, Madras, India.
 NORMAN: GEOFFREY, 8 Clifford's Inn, Temple Bar, E.C.; 55 Eccleston Square, S.W.1.
 NORTON: CHARLES HARROLD, 14 Bedford Row, W.C.1.; 5 Holly Hill, Hampstead, N.W.
 PATERSON: GEORGE ANDREW, 16 Blythswood Square, Glasgow; Terpersie, Helensburgh.
 PEARSON: LIONEL GODFREY, 28 Woburn Place, Russell Square, W.C.; 28 Church Row, Hampstead, N.W.
 PHIPPS: PAUL, B.A., 97 Jermyn Street, S.W.1.; 8 Burton Court, Chelsea, S.W.3.
 PORTER: BERNARD ARTHUR, County Buildings, 147 Corporation Street, Birmingham.

PRESTON: ARCHIBALD FREDERICK, 50 Moorgate Street, E.C.2.; 86 Warren Road, Leyton, E.10.
 SNELL: JOHN SAXON, 26 Great James Street, Bedford Row, W.C.1.
 SPOOR: STANLEY MILES, 26 Great James Street, Bedford Row, W.C.1.; 49 Oxford Mansions, Oxford Circus.
 STEEL: JOHN, Royal Buildings, Main Street, Wishaw; The Chalet, Wishaw.
 STEWART: JOHN, 16 Blythwood Square, Glasgow; Huntingdon, Bridge of Allan, N.B.
 STILL: JOHN EDWARD, 50 Threadneedle Street, E.C.; "Trewithian," Downs Court Road, Purley, Surrey.
 SWAN: JAMES HENRY, 8 Clifford's Inn, E.C.; Greystead, Amersham Common, Bucks.
 THOMPSON: ALBERT JOHN, c/o The Garden Cities Trust, 80 Adderley Street, Cape Town, S. Africa.
 WEIR: WILLIAM MAY, 17 Victoria Street, Westminster, S.W.; 41 Hillfield Road, West Hampstead, N.W.
 WILLIAMS: RICHARD JOHN, Parkstile Chambers, Market Street, Kettering; "Ivel," Glebe Avenue, Kettering.
 WILSON: THOMAS MILLWOOD, 4 Staple Inn, Holborn, W.C.1.; 46 Hampstead Way, Golders Green, N.W.4.

BUSINESS MEETING, 29TH NOVEMBER.

The following matters will be brought before the above Meeting:—

1. **Regulations for Architectural Competitions.**—The insertion of new provisions as essential conditions will be moved by the Chairman. The terms of the conditions will be published in the next issue of the JOURNAL.

2. **Scale of Professional Charges.**—At the same meeting the Chairman will move that the Revised Scales of Fees payable to Architects and Quantity Surveyors in connection with State-aided Housing Schemes, as set out in the Ministry of Health's General Housing Memorandum No. 31, be incorporated in the "Scale of Professional Charges" in substitution for the existing Clause 9.

Candidates for Election at the Business Meeting, 29th November, 1920.

An election of Candidates for Membership will take place at the Business General Meeting of the 29th Nov. The names and addresses of the candidates (with the names of the respective proposers), found by the Council to be eligible and qualified for membership according to the Charter and Bye-laws, and recommended by them for election, are appended:—

AS FELLOWS (9).

GREEN: THOMAS FRANK, P.A.S.I. [A. 1903], H.M. Office of Works, King Charles Street, S.W.1; 272 Willesden Lane, Cricklewood, N.W.2. Proposed by H. P. Burke Downing, Sir Charles Ruthen, Leonard Stokes.

And the following Licentiates who have passed the qualifying examination:—

ARNOTT: JAMES ALEXANDER, 13 Young Street, Edinburgh; 76 Warrender Park Road, Edinburgh. Proposed by W. T. Oldrieve, John Wilson, A. Lorne Campbell.

BOND: WILFRID, 11 Elmer Street, Grantham: The Cottage, Welby Gardens, Grantham. Proposed by Sir Chas. Nicholson, Walter Tapper, Frank L. Pearson.

HEWITT: STANLEY GOODISON, 2 Exchange Street East, Liverpool; 11 Park Road, West Kirby, Cheshire. Proposed by Hastwell Grayson, Arnold Thornely, T. F. Shephard.

LORD: GEORGE WILFRID, Sudan Government Railways, Atbara, Sudan.

SLATER: WILLIAM FORD, Wedgwood Place, Burslem; 17 Knutton Road, Wolstanton, Staffs. Proposed by Charles Lynam and the Council.

SMITH: WILLIAM CHARLES CLIFFORD, O.B.E., 40 Craven Street, Strand, W.C.; Dudley Lodge, Wallington. Proposed by H. D. Searles-Wood, Andrew T. Taylor, W. E. Riley.

THOMSON: DAVID, M.B.E., 13 Victoria Street, S.W.1; The Gables, Cheam Common Road, Worcester Park. Proposed by G. P. K. Young, A. Jessop Hardwick, Alfred Cox.

TWIST: WALTER NORMAN, 83 Colmore Row, Birmingham; "Heathergate," Thornhill Road, Streetly, Staffordshire. Proposed by Herbert T. Buckland, R. Savage, Samuel N. Cooke.

AS ASSOCIATES.

* *The 21 Applicants marked * have been the subject of special consideration by the Council and their names are put forward as special cases in accordance with recommendations Nos. 2, 3 and 4, passed at the Conference with Representatives of Allied Societies on the 19th January 1920 and unanimously approved by the Council on the 2nd February 1920.*

† *The names of the 23 Applicants marked † are published in accordance with recommendation No. 1 passed at the Conference with Representatives of Allied Societies on the 19th January 1920 and unanimously approved by the Council on the 2nd February 1920.*

*ASHTON: ARTHUR, P.A.S.I. [S. 1907], Clifton Chambers, Wood Street, St. Anne's-on-Sea, Lancs. Proposed by Sir Banister Fletcher, Chas. J. Dawson, W. Alexander Harvey.

BAIN: VICTOR [S. 1912], 38 Albion Street, Leeds. Proposed by Geo. T. Brown, Thomas R. Milburn, and the Council.

†BANKS: WILLIAM ARTHUR [S. 1911], Gatesgarth, 206 Dosey, Stafford. Proposed by Sir Banister Fletcher, Joseph Crouch, Leonard V. Hunt.

†BATTY: WILLIAM ARNOLD, M.C. [S. 1910], Hillside, Ben Rhydding, Leeds. Proposed by Professor C. H. Reilly, T. Edwin Cooper, Frank G. Briggs.

BLOOMFIELD: FRANK T'ANSON [Special War Examination], 5 Hamilton Street, Sydney, N.S.W. Proposed by John Sulman, Alfred Spain, Robert Atkinson.

BONIFACE: CHARLEY FRANK [S. 1913], 10, St. Peter's Road, Petersfield, Hants. Proposed by Robert Atkinson, E. Stanley Hall, C. E. Varndell.

*BRACEWELL: ARTHUR [S. 1905], Willowbank, Keighley. Proposed by Professor Beresford Pite and the Council.

†BURFORD, JAMES [S. 1916], 16 Tregunter Road, South Kensington, W.10. Proposed by Robert Atkinson, Charles E. Varndell, H. D. Searles-Wood.

†BUTTERWORTH, HAROLD, M.A. [S. 1917], Somerset Buildings, 19 Brazennose Street, Manchester. Proposed by Paul Ogden, Isaac Taylor, Edward Hewitt.

*CABLE: PROFESSOR ROBERT WILLIAM [S. 1909], School of Art, Bombay, India. Proposed by Robert Atkinson, G. Wittet, G. Gilbert Scott.

†CAMPBELL, DUNCAN ALEXANDER [S. 1919], 51 North John Street, Liverpool. Proposed by Arnold Thornely, Hastwell Grayson, Frank G. Briggs.

*CHANTER: HORACE RAYMOND [S. 1908], 7 Whitehall Gardens, Acton Hill, W.3. Proposed by Professor A. E. Richardson, E. C. P. Monson, A. O. Collard.

†CHARLEWOOD: GEORGE EDWARD [S. 1910], 4 Mosley Street, Newcastle-on-Tyne. Proposed by Charles S. Errington, R. Burns Dick, Geo. H. Fellowes Prynn.

†CLAYTON: GERALD RUPERT [S. 1914], 2 Oozehead Lane, Blackburn. Proposed by the Council.

*CRUTCHLEY: FREDERICK ERNEST [S. 1908], 10 Queen's Grove Road, Chingford, Essex. Proposed by T. Taliesin Rees, Professor C. H. Reilly, Edmund Wimperis.

- DAVIES: JOHN PERCIVAL WILKINS [S. 1913], Public Works Department, Delhi Province, Raisina, India. Proposed by H. L. North and the Council.
- †ELSTON: JAMES [S. 1910], Market Chambers, Earlestown, Lancs. Proposed by the Council.
- *FIRTH: JOSEPH PERCY [S. 1904], 12 Westfield Grove, Wakefield. Proposed by H. S. Chorley, William H. Thorp and the Council.
- GEORGE: BERNARD [S. 1919], 39 Warwick Road, Earl's Court, S.W. Proposed by Robert Atkinson, C. E. Varndell, E. Stanley Hall.
- *GISBY: ERNEST WILLIAM [S. 1908], 13 Meyrick Road, Stafford. Proposed by the Council.
- †GOSSLING: HUGH FOLEY [S. 1919], 15 Birdhurst Road, Croydon. Proposed by Robert Atkinson, Thos. E. Collett, Charles E. Varndell.
- *GREENWELL: CARLYLE [S. 1907], Killara, Sydney, New South Wales. Proposed by Robert Atkinson, Maurice E. Webb, G. Gilbert Scott.
- *HAGUE: HORACE VINCENT [S. 1909], 4 Cheapside, Derby. Proposed by George H. Widdows and the Council.
- †HARDY: THOS. CHAS. [S. 1915], c/o Stanley & Scheibel, 1301 Wilck Buildings, Youngstown, Ohio, U.S.A. Proposed by James Miller, John Watson, David Salmond.
- †HIGGS: HAROLD JOHN [S. 1910], Goring-on-Thames. Proposed by W. Roland Howell, Arnold Mitchell, and the Council.
- *HOOPER: CHARLES OWEN [S. 1909], c/o Messrs. Hemmings and Berkley, Hankow, China. Proposed by Sir James Lemon and the Council.
- †INGHAM: WALTER [S. 1910], County Hall, Beverley. Proposed by George H. Widdows, B. S. Jacobs, L. Kitchen.
- †JONES: WILLIAM HAROLD [*Special War Examination*], 24 Sunnyside Road, Hornsey Lane, N 19. Proposed by W. Charles Waymouth, Robert Atkinson, Maurice E. Webb.
- JOPLING: ALFRED BRADSHAW BOSTON [S. 1919], 331 Beverley Road, Hull. Proposed by Professor C. H. Reilly and the Council.
- KEESING: GORDON SAMUEL [S. 1911], A.M.P. Chambers, 89 Pitt Street, Sydney, N.S.W. Proposed by Harry C. Kent, Alfred Spain, John Sulman.
- *KNOTT: ARTHUR JOHN [S. 1909], 80 Hampton Road, Redland, Bristol. Proposed by George H. Oatley, Sir Frank W. Wills, Herbert Baker.
- *MCNICOL: JOHN, P.A.S.I. [S. 1907], 8 Park Terrace, Stockton-on-Tees. Proposed by R. Burns Dick, John T. Cackett, Joseph Oswald.
- *MAY: PERCY [S. 1905], 235 Devonshire Road, Honor Oak Park, S.E.23. Proposed by Arthur T. Bolton, Alfred H. Hart, F. Winton Newman.
- *MORGAN: HUGH TOWNSEND, [S. 1906], 88 Gower Street, W.C.1. Proposed by Professor F. M. Simpson, Professor S. D. Adshead, Sir Reginald Blomfield, R.A.
- †MOSS: DONALD JOHN [S. 1912], 150 Belsize Road, Hampstead, N.W.6. Proposed by Frank E. Smee, W. J. Burrows, W. F. Young.
- PALMER: ARTHUR JAMES [S. 1913], Selwyn Road, Epsom, New Zealand. Proposed by J. Hector McKay, William Turnbull, Gerald E. Jones.
- *POOL: STANLEY [S. 1907], Oakleigh, Hartley Wintney. Proposed by Ernest Newton, R.A., Professor W. R. Lethaby, Professor S. D. Adshead.
- *REW: NOEL ACKROYD [S. 1906], 219 High Street, Great Berkhamsted. Proposed by Professor W. R. Lethaby, G. Salway Nicol, Sir Reginald Blomfield, R.A.
- RICKARD: STANLEY NOBLE [*Special War Examination*], Carrington, Auburn Road, Granville, Sydney, N.S.W. Proposed by Robert Atkinson, E. Stanley Hall, C. E. Varndell.
- †ROLLO: ROBERT LESLIE [S. 1918], 12 Murray Terrace, Ferryhill, Aberdeen. Proposed by James A. Morris, Sir John Burnet, John Watson.
- *SANDERS: THOMAS ANDREW [S. 1919], 5 Gloucester Road, Southport. Proposed by Professor C. H. Reilly, Professor S. D. Adshead, and the Council.
- †SATCHFILL: HUGH GRANVILLE [S. 1919], Charlbury, Castle Bar Road, Ealing, W.5. Proposed by E. Vincent Harris, J. Edwin Forbes, Robert Atkinson.
- †SEARBOOK: SAMUEL BROUGHTON [S. 1912], 12 Eastwood Road, South Woodford, N.E. Proposed by the Council.
- *SKINNER: THEODORE ARTHUR [S. 1908], 27 Orchard Street, Bristol. Proposed by George H. Oatley, Sir Frank Wills, Richard C. James.
- SMITH: WILLIAM JAMES [S. 1920], 5 Rhannan Road, Cathcart, Glasgow. Proposed by John Hamilton, Wm. B. Whitte, H. E. Clifford.
- *SYMINGTON: HERBERT ANDREW [S. 1908], The Cottage, Narborough, Leicestershire. Proposed by H. L. Goddard, Howard H. Thomson, Arthur H. Hind.
- †THOMAS: ARTHUR PHILIP [S. 1910], Danygraig, Southern Down, Bridgend, Glam. Proposed by Professor R. Elsey Smith and the Council.
- †THORPE: ALEXANDER [S. 1910], 6 Newton Road, Bayswater, W. Proposed by Edmund Wimperis, C. Lovett Gill, Professor A. E. Richardson.
- UNSWORTH: GERALD [S. 1905], 16 Station Road, Petersfield. Proposed by Thos. E. Collett, Sir Ernest George, R.A., and the Council.
- *VENTERS: JOHN MACKIE [S. 1920], 3 Radnor Terrace, Sandyford, Glasgow. Proposed by John Keppie, W. Hunter McNab, Wm. B. White.
- †WELCH: HERBERT ARCHIBALD [S. 1909], Headlands, Huddersfield, Yorks. Proposed by J. Reginald Naylor, G. Hanson Sale, Thomas B. Whinney.
- *WICKS: HERBERT GRAHAM, M.C. [S. 1907], 5 Bennetts Hill, Birmingham. Proposed by Professor S. D. Adshead, H. D. Searles-Wood, W. Alex. Harvey.
- †WILLS: TRENWITH LOVERING [S. 1910], 24A Yeoman's Row, Brompton Road, S.W.3. Proposed by Professor C. H. Reilly, Detmar Blow, and the Council.
- †WINBOURNE: GOODMAN GEORGE, P.A.S.I. [S. 1915], 13 Shiplake, Calvert Avenue, N.E. Proposed by the Council.
- *WOOD: CECIL WALTER [S. 1903], 90 Hereford Street, Christchurch, N.Z. Proposed by the Council.

General Meeting, Monday, 15th November.

THE SECOND GENERAL MEETING (ORDINARY) of the Session 1920-21 will be held MONDAY, 15th NOVEMBER, 1920, at 8 p.m., for the following purposes:—

To read the Minutes of the Meeting held 1st November, 1920; formally to admit members attending for the first time since their election.

To read the following Paper:—

THE LIBRARY OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

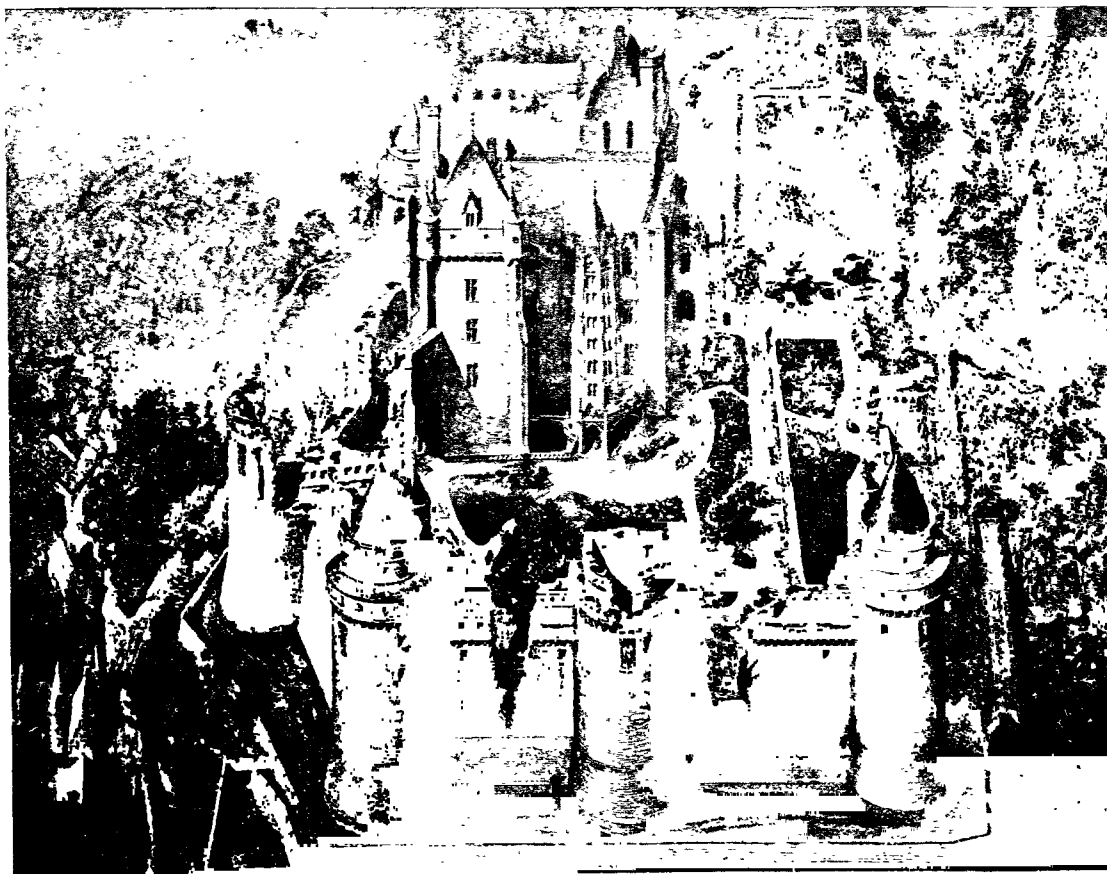
BY RUDOLF DIRCKS, Librarian R.I.B.A.

SHANGHAI.—Two Assistant Architects are required for the Works Department of the Chinese Customs Service at Shanghai. Candidates must be Associates of the Institute, about 28 years of age, with a good knowledge of reinforced concrete design and construction, and with some responsible work to their credit; they should be unmarried. Salary Haikwan Taels 350 a month, increasing by Haikwan Taels 53 a month for every two years' service in China, to a maximum of Haikwan Taels 560, and allowances. (The Haikwan Tael may be considered to be worth normally 1s., but its present value is about 6s.) First-class passage paid and £50 travelling expenses. Applicants should address themselves to Box 311, Secretary R.I.B.A., 9, Conduit Street, W.

ASSISTANT INSPECTOR of Public Works required for the Public Works Department of Southern Rhodesia. The work will include quantity surveying, estimating, preparation of plans and specifications and inspection of works. Salary, £600 per annum, with marriage and children allowance in accordance with the Civil Service Regulation. £50 will be allowed toward the cost of the fare out. The climate is very good. Applications to be sent by letter, with testimonials, to Messrs. Stratfield & Atwell, Architects, 24, Old Buildings, Lincoln's Inn, W.C.2.

EUGENE EMMANUEL VIOLLET-LE-DUC (*Royal Gold Medallist 1864*) :
SOME PERSONAL REMINISCENCES AND APPRECIATIONS.

By the Rev. G. H. WEST, D.D. [*Hon. A.*],
Author of *Gothic Architecture in England and France*.



CHATEAU DE PIERREFONDS

From De Baudot & Roussel's *Dessins Inédits de Viollet-le-Duc*

M. ANTHYME ST. PAUL begins his severely critical study of the work of Viollet-le-Duc (published in 1881) by saying that he does not intend to give an account of the man, or of his life, because some time must be allowed for ardent enthusiasms or unjust hatreds to cool down before a fair biography could be written. This need was thoroughly well supplied by Monsieur Paul Gout, the present chief architect of the Monuments Historiques, in his work entitled *Viollet-le-Duc: Sa Vie, son Œuvre, sa Doctrine*,* which appeared just as the War broke out and which, but for that, would have been noticed before this in these pages. It is a good book, fair in tone, temperate in expression, clear in statement. It is divided into two

* Published by Edouard Champion: Paris, 5 Quai Malaquais, 1914.

parts, each containing four chapters. The first, "The Man," gives his life, artistic education and professional career: the second, "The Work," looks at and criticises him as the writer, the artist, the man of science, and the citizen, and brings out very clearly how remarkable he was in all those respects. As a writer his style corresponds thoroughly to his own definition of what style should be, quoted by M. Gout (p. 80). It was extremely simple and clear and somewhat dry because he always went straight to the point and never wasted a word. As a writer, a draughtsman and an architect, he was already known as being at the head of his profession, but M. Gout lays great stress on a side of his character but little known in this country—his intense patriotism, and readiness to help in public matters, and on the fact that it was in them that he really wore himself out

before his time. The illustrations, taken partly from the *Dictionary*, are extremely well produced, and some from his watercolours, especially the Theatre of Taormina and its restoration, really remarkable. The fine portrait which forms the frontispiece does not do more than justice to the noble expression of the beautiful features. It only remains to add that M. Gout's own style in its straightforward clearness is worthy of its subject. The only defect of the book is one for which its author is in no way responsible: that he appears never to have known personally the man of real genius to whose memory his book is a not unworthy tribute. As I am probably the only Englishman now alive who studied under him, I shall I think, be pardoned if in noticing the book I add a few personal reminiscences and appreciations.

Viollet-le-Duc was a born rebel, one for whom throughout life

"The world is out of joint.

one of those of whom George Herbert says:

"Active and stirring spirits live alone;
Write on the others—Here lies such an one

This aspect of him is shown in a pathetic reminiscence of himself as a boy of 12, written in his diary when he was 19. We see him at school, sitting dreaming in a corner of the playground with an unread book in his hand, refusing to join in the games of his companions, turning his back on those who jeered, crying when sympathy was shown by others, furious in himself when "one of those men who pretend to educate children" said: "Go and do something, you have no courage, no energy." The child is father of the man—the "petit incompris" became the man always "la rage au cœur et le chagrin dans l'âme," who died in harness "un vieux cheval surmené," having lost hope in this world, and having none in the other, directing that he should be buried "without the assistance of a minister of any religion."

Could there be a sadder memory for those who knew and loved him for what he really was—an artist of marvellous genius, a man true all through, warm-hearted, and at his best a humorous and joyous companion, always ready to help others, especially the young, caring above all things for the future of his art, and of his beloved country, France? Much of the "chagrin" of his life arose from his never having realised that no one of us, not even the youngest, is always infallible, nor others always wrong. Even at 18 he shows absolute confidence in himself. "I am destined to cut my own road through the rock, I never could follow that which others have made." Yet this self-confidence was not conceit, but the result of a spirit of logical analysis which made him submit everything he said or heard or did to the severe control of his reason. In 1830, when he was 16, the carefully thought out way in which he built a barricade in front of his parents' house made him the model for the others in the neighbouring streets.

At this age he entered the atelier of Achille Leclerc,

and shortly after travelled with his uncle Delescluse, himself an artist, through part of France. From the volcanic region of the Puy-de-Dôme he gained the fondness for geology which inspired his book on Mont Blanc and nearly led to his death in 1870, when, having fallen into a crevasse, he cut the rope in order that his one guide might fetch help. A twist in the ice seated him on a ledge, and, as he told me, "I knew if I went to sleep I should die, so I kept myself awake for two and a half hours by studying and sketching the formation of the ice." A good deal of the man's character is there.*

It was this readiness of resource in difficult circumstances, this analytical power and marvellous draughtsmanship, which in 1840, made his friend Prosper Mérimée, take him into the Commission des Monuments Historiques and entrust him with the immediate restoration of the Abbey of Vézelay, then in a most alarming and dangerous state.

Before going on to speak of his professional career it will be well to notice the qualities which led to his success.

First comes his marvellous draughtsmanship. His exactness of eye and rapidity of execution were almost incredible, and so natural to him that he could not believe that others were not equally gifted, and in his pamphlets on the teaching of drawing and in the models and system in which he collaborated with the Christian Brothers he takes it too much for granted. The outcome of his efforts, however, was a great improvement in the results of the teaching in the schools of France. How great his own natural talent was appears in a drawing of St. Pierre Coutances, reproduced by M. Gout, and made at the age of 18. It is obviously the work not of a painter but of an architect, rather cold and hard, but absolutely clear and correct, to the minutest detail. It is worth notice that he evidently used a couple of set squares, as did Pugin. In architectural work, and especially if he was using the Camera Lucida, as he usually did, he always thus ruled in the guiding lines faintly to start with. He was never without a pencil in his hand, and whenever I went to show him my work, while criticising it, standing at his desk, he always continued making some little rapid sketch of his own. His rapidity of execution was equally wonderful. At Clermont-Ferrand, between 8 and 11 a.m., he drew six or eight double elephant sheets, giving all the large scale working drawings for the rose window stage of the cathedral façade, including the towers, and plans of each course coloured to show the "pierre dure" (Volvic lava) and "pierre tendre." And while walking he would make rapid sketch notes almost without stopping, of any detail or of curious veins in a block of basalt which caught his eye.

As to visual memory he would tell me to go to sketch or draw to scale this or that column or detail in some

* V. p. 57, where the whole story is given and one of these sketches reproduced. He cut the rope, he told me, with an English knife which he valued, which he believed he had dropped, but found he had closed and replaced it in his pocket while actually falling, and not afterwards.

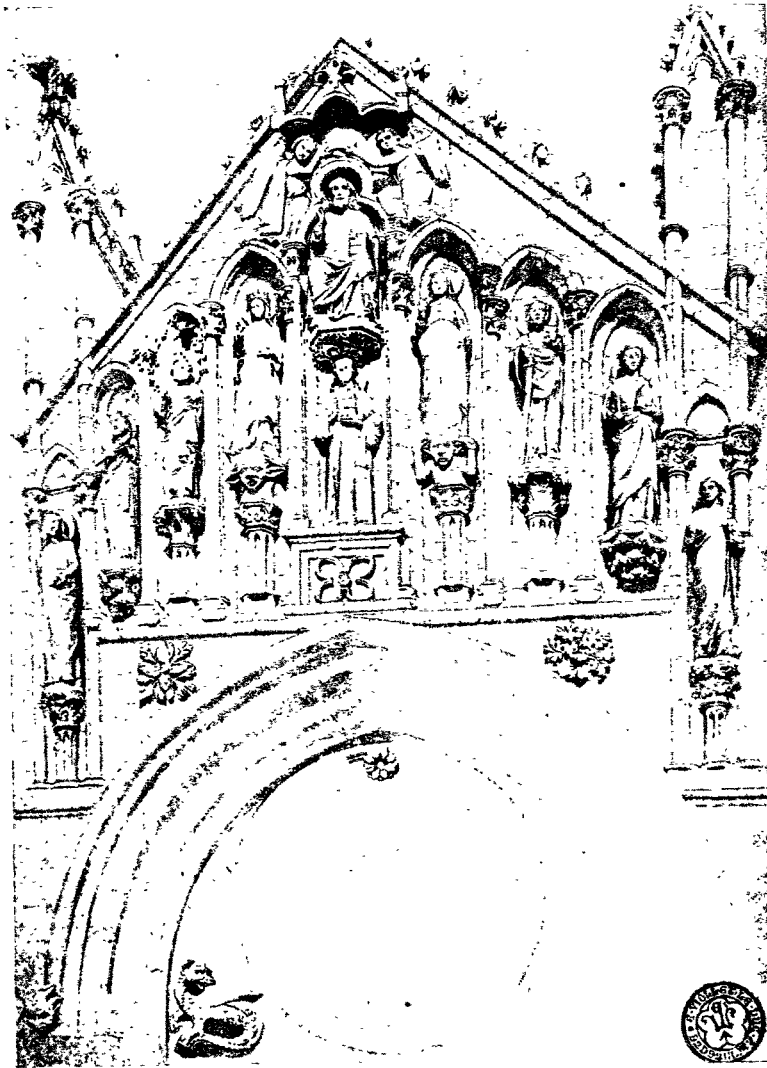
particular church, and criticise it afterwards from his own absolutely accurate memory.

Yet his wonderful facility of drawing and of memory were, I believe, hindrances, not helps, in his own original work as enabling him to make at once a fairly suitable design without being compelled to give to it the careful study and thought which less-gifted mortals have to do.

In six months spent in Sicily he made 223 drawings.* He was largely helped in getting through this extraordinary amount of work which he accomplished, by the rigid assignment of fixed amount of time. If anything was not finished at the end of its allotted time it was put aside till the morrow. He began work at 7. At 8 he saw those who had appointments. I had to be there to the minute or found the door shut. He was generally having a cup of tea and a piece of cake and finishing a sketch while he talked to me. At 9 any one who wanted to see him could come in. At 10 he became inaccessible. As a travelling companion he was charming: the railway journey was nearly always at night. In the afternoons, a short walk, when he made friends with all the cats he met. I remember well a poor little black kitten mewing on a doorstep whom he picked up, saying, "Pauvre petit, si jeune et tant de chagrin," and carried a long way till he had soothed its sorrow. But visiting unfinished buildings with him was not all joy. Two nightmare remembrances still haunt me at times — one, going up the inside of the spires at Moulins on a corbelled out staircase which had not received its balustrade; the other, trotting after him from joist to joist in the semi-obscurity of the roofs of Pierrefonds with bright sunshine streaming in on the floors below us. It is not necessary to go into the history of his dispute with the Academy and the Ecole des Beaux-Arts, nor into that of the unhappy result of his lectures to the latter, which had to be abandoned owing to the opposition of the students.†

As usual, there were faults on both sides. Viollet-

le-Duc made himself the apostle of absolute reason and the severest logic in the whole building art. Beauty of design must be merely the natural result of their application. The programme must be carried out simply and in the most practical way possible, using the necessary materials strictly in accord with their nature. All this is perfectly true, but Viollet-le-



ST. PÈRE-SOUS-VÉZELAY.

From a drawing by E. E. Viollet-le-Duc in *De Baudot & Roussel's Dessins In l'its de Viollet-le-Duc*.

Duc often stated it too crudely and did not allow that there should be any beauty of design or decorative effect which was not the direct result of the structure. He was a true artist, yet even in his own original work the result of the rigid application of this principle was a certain bareness and hardness which in the hands of others less gifted would have become as lacking in inspiration as a piece of mere engineering, as wearisome as the pomposity of Versailles or the monotonous

* An amusing account of this trip is given in *Lettres sur la Sicile* (1860), and the description of how the Carabiniers who formed his escort by day went out as brigands by night is particularly good.

† The substance of these lectures was published by him later as *Entrées sur l'Architecture* and in a translation by Benjamin Bucknall, 2 vols. Sampson Low, 1875.

solemnity of the Escorial. In the case of Viollet-le-Duc, inspiration and feeling came from his love for and thorough comprehension of Gothic, and his true self is to be found in such a work as *Pierrefonds*, where he was able to give the reins to his poetic memory of the times he loved. His teaching was always misunderstood, and because he was never tired of urging that Gothic was the national style and inheritance of France and that the principles of the mediæval builders were the right ones—which was quite true—he was accused of trying to make Gothic the national architecture of France, whereas he opposed the idea of copying Gothic detail at least as much as he did that of copying Greek or Roman.

He was more than justified in his criticism of the system of the *Ecole des Beaux-Arts*, by which design and construction were absolutely divorced, the student being set to make designs quite regardless of the possibility of constructing them, and then to study construction as a question of materials and their nature and method of employment quite independently of design. A personal experience may illustrate this. While still articled to E. M. Barry, R.A., I went to Paris and entered one of the most famous of the ateliers connected with the *Ecole*. After more than a year's hard work I found the results most unsatisfactory, so I went with an introduction to Viollet-le-Duc, taking with me a "projet" for a baptistery which I had had set me. Viollet-le-Duc's comment was, "Not bad, but it would not stand five minutes; in fact, it could not be built." Thenceforward, working under his advice and in the atelier of M. de Baudot, in six months I had been taught how to learn.

Before that I used to be told "this window is too large, that column too heavy," plan and design were criticised for their prettiness or symmetry, with no question of the materials which were to be used or of the possibility of their being constructed. In practical matters the English method of education even then was so far superior to the French that Viollet-le-Duc asked me for an account of it, and especially of the work of the Architectural Association, which appears in Volume II. of his *Entretiens*. And, thanks to the A.A. and to the R.I.B.A., English architectural education is far superior now to what it was then.

The best example of the teaching of the *Ecole des Beaux-Arts* at that time, is the Paris Opera. There are many faults even in the design, especially in the heaviness of the attic, the want of a pediment and the great barn of the stage which rises above the whole. The construction, however, is what one would expect from the design having been made first regardless of it. Every stone of the vault of the arched vestibule is hung by an iron rod to a girder above. The wall between the stage and the auditorium, instead of being of iron and concrete, is of hard Burgundy stone, a most costly material and difficult to work and which necessitated an outlay of £160,000 in the foundations from its weight. The iron roofs are thoroughly badly designed and clumsy and the workmanship disgraceful. The square

dome over the staircase is carried by angle irons resting on jumbles of brickwork and wedged up with wood. The auditorium roof is carried by sets of four hollow iron columns, which flew apart at first owing to their different loads and were finally made into square piers by rough brickwork held together by heavy iron bands and angle irons. But the building undoubtedly is characterised by much beauty of detail, thorough appreciation of theatrical effect and great facility of composition.

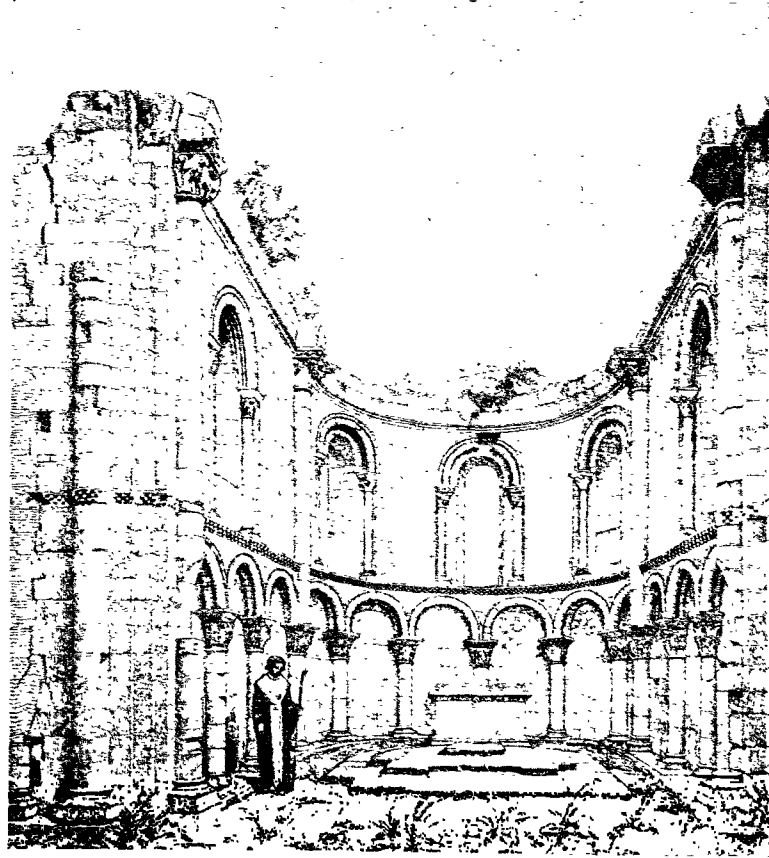
As a restorer, while fault can be found with some of the alterations which he made—especially at Vézelay and Amiens, yet on the whole he was conservative and France owes him a vast debt for many treasures which otherwise she would no longer possess. At *Notre-Dame*, though he destroyed the marble decorations of Louis XIV. and removed much later work and all the paintings, the place of which is by no means taken by his decoration of the Chapels, and the building has been left looking cold and bare, yet he has made it retell its own history in a way it never did before by the insertion of some of the roses of Maurice de Sully and the restoration of two bays of the triforium, with their flying buttresses, to the original design. The central spire shows him at his best, but the sacristy and that at Amiens at his worst. He certainly removed a considerable amount of late work, like the *chefs de lampe* at Sens, which was beautiful in itself. How much greater his sympathies were with the constructive than with the decorative side of Gothic is shown by his immense admiration for St. Urban of Troyes, which, however wonderful as a piece of ingenious and economical construction, is rather an architectural jigsaw puzzle than an inspiring work of art. He would never have been guilty, like Abbadie, of practically destroying buildings like St. Front of Périgueux, the Cathedral of Angoulême and Germigny-des-Prés, or of removing the second choir screen, as was done at Ottery St. Mary, or of other pieces of destruction wrought in England; and many things of which he strongly disapproved are now put down to him, as is the miserable façade of St. Ouen at Rouen by Mr. Porter, whereas it was a job carried through in spite of his protest by the city architect in 1848. Far from this, he preserved much which he might have destroyed. He told me how he prevented the destruction of the grand Romanesque nave of Toulouse Cathedral which the clergy ("rati-chons" he called them) wanted to replace by a nave to correspond with the fifteenth century choir and to have the same axis, the centre of the choir being in line with the north wall of the nave. He was called on to report and said the choir should be destroyed to correspond with the nave, so that ended the matter. At Rouen he wanted to cover up the hideous cast-iron spire by a reproduction of the wooden steeple destroyed by lightning in 1820. He prevented its being finished on the score of its excessive weight in hopes that the Rouen people would become ashamed of it, but they have completed it in copper since he died.

The great work of his life, however, was not so much

the exercise of his profession as the two *Dictionnaires de l'Architecture, et du Mobilier français* (10 volumes, published 1854 to 1868, and 5 volumes, 1858 to 1875). It is most earnestly to be hoped, in the interests of architecture and of archæology, that these two great works will not be forgotten or fall into disuse, as I fear there is danger of their doing.* In the *Dictionary of Architecture*, to quote M. Gout. "The author, in describing and analysing the buildings with the greatest clearness, gives us the *raison d'être* of the forms, the principles, from which they arose, and the ideas which caused them to be chosen." Even M. Anthyme St. Paul calls it "the most learned, the clearest, and the best illustrated book of all those which have ever been written on architecture." At the same time he is unduly severe on its being in the form of a dictionary, for no continuous treatise could have given the results of the author's life work as he went along, studying each building on the spot, in anything like so clear and readily accessible a form. Neither is it a fair criticism to say that his examples and deductions are drawn too much from the buildings of which he himself had charge, nor to say that different parts of the book are not consistent. That is a defect, but its publication extended over fourteen years and he was always learning. He is undoubtedly uncertain in his delimitation of the architectural regions of France because he only gradually realised how much they overlap, and how much special buildings were the result of seigneurial or monastic influences, a point which could only be made clear by much study of the documents, for which he had little time, and not only of the buildings themselves.

The really serious fault is that on which M. St. Paul lays great stress, and rightly so: the theory that true Gothic was not a development of Romanesque, but that it arose almost suddenly as an invention of guilds of laymen who supplanted the monks as architects: that the great cathedrals were not only contemporaneous, but were the result of an alliance between the secular clergy, headed by the Bishops and the Communes, and directed against the monks and the nobles. There are elements of truth in this theory, which is nowhere stated as a whole, but when that is done its falsity becomes apparent. It would be beyond our limits to enter into it fully and it is not necessary, since M. St. Paul has remorselessly dissected it and pulled it to pieces.†

What led Viollet-le-Duc into this error it is difficult to say. It may have been his strong anti-clerical feelings, which increased with his years. These feelings were, I believe, the simple result of his inability to admit anything which could not be demonstrated by cold and logical reason. His position, therefore, was that of an absolute agnostic, and in this matter, as in questions of art, he felt a sort of angry contempt, not always too gently expressed, for those who did not let themselves be guided solely by their reason. This posi-



ST. SAVIN DE VILLEFRANCAIS.

From a drawing by E. E. Viollet-le-Duc reproduced in De Boudot & Rousseau's *Deux siècles d'architecture* de Viollet-le-Duc.

tivist attitude might have led, as M. Gout says, to hard-heartedness and egoism, but no one was ever more willing to help others or more keenly anxious to undo the results of errors. In nothing was this more clearly shown than in the political line which he took up after the war of 1870. Before that time he was always one

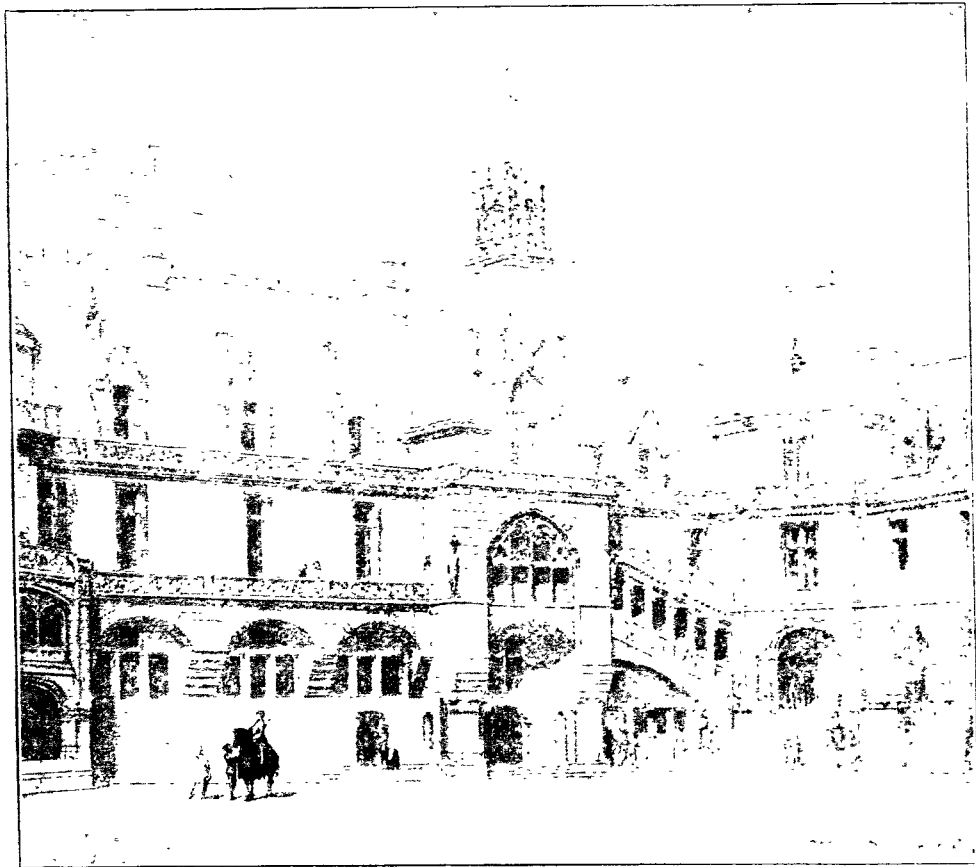
* I have been much struck of late years by the small interest shown in mediæval art by many young students. For more than a year I took a class of students, translating to them the articles in the *Dictionnaire*, and I believe they gained much by it. I wish something of the sort could be done again.

† E. Viollet-le-Duc: *Ses Traité d'Art et son Système Architectonique*, par Anthyme St. Paul (Paris, 1881; *Bibliothèque de l'Année Archéologique*), especially chapters IX. and X.

of the most welcome of the "invités de Compiègne" and on terms of great personal friendship with Napoleon III., more so than one would have perhaps expected from his character and principles. But, unless the restoration of the Chateau of Pierrefonds be made a reproach, he never used this intimacy for any personal advantage. He was, moreover, far too clear-sighted not to see whither things were tending. When I asked him, after the war, why part of the courtyard of Pierrefonds had been finished much more simply than was shown in a sketch which he had given me, he said

and carry out a considerable part of the defensive works, especially on the Auteuil side and by the Bridge of the Point du Jour. When the Commune seized Paris he was consulted as to how best to attack his own fortifications—a very unusual experience—and it was on that side of Paris that the Versailles troops finally entered.

After the fall of the Empire he became an ardent supporter of the Republic. In spite of his intimacy with Napoleon III., Viollet-le-Duc was always at heart republican, and in the *Centre Gauche* he



CHATEAU DE PIERREFONDS. COURTYARD.
From a drawing by E. E. Viollet-le-Duc.

"Oh, the Empire was great fun, but it could not last, so I simplified everything and hurried it on as much as I could to get it finished."

During the Siege of Paris, though over age, his self-devotion was extreme. If my father had consented I might have been his aide-de-camp, and after the Siege he said to me "It is just as well you were not. I never slept in a bed from the first week of the Siege till after the Armistice." He left Paris finally in November 1870 with 1,543 men, and came back with 965. He had the charge, under M. Alphand, of the protection of the chief buildings of Paris, and because of his studies of fortification he was called upon also to plan

denounced the new financial feudalism as being the real enemy of liberty and of good government. After 1871 he refused to stand for election as deputy, but he joined the Municipal Council of Paris, where his honesty, wide knowledge and business faculties were of immense service. When his wife expressed to him her alarm at his overwhelming work and at the enemies whom he was stirring up, he replied: "We are in a time when all men of goodwill (*bonne volonté*) are bound to take part in public matters. Only so can one raise up the country, and not by grumbling and watching others work. So long as strength is left me I shall devote it to patriotic work. It is the only

thing for which I really care and it matters little to me whether I am praised or blamed. I know what I want to do, and as I know that it is the right thing to do, people may say what they like."

At sixty-five, in the full vigour of his mind, Viollet-le-Duc succumbed beneath the weight of the work which he had undertaken, regretting only one thing, not to have been able to do more for France and for his fellow-countrymen. If only we could call up again that self-sacrifice and patriotic fervour of his in these days which need them even more than those which he lived through!

It is interesting to put side by side the two men of genius who were the leaders of architectural reform in France and England during the middle half of the last century—Viollet-le-Duc and Ruskin. It is curious to note that it was the Frenchman who possessed the practical, logical spirit which would make architecture the simple providing of the material want in absolutely truthful construction, regardless of emotion or sentiment or tradition, but with this firm conviction, that beauty of form would result; while the Englishman preached a gospel which proclaimed that beauty of form was the thing to aim at, by the light of the Seven Lamps of Sacrifice, Truth, Power, Beauty, Life, Memory and Obedience—Logical Construction not being given a place by their side, but looked on as their necessary result. Yet, when one thinks of the charac-

ter of the two nations, it is not altogether surprising that it should be so. Throughout their history the French have always set before themselves a clear, definite, ideal aim. Before the Revolution this aim was embodied in the person of the King. To serve the King was to serve France. Since 1789 it has been the idea of Liberty in the abstract. In either case the guiding spirits of the nation have had an ideal clearly before them, for the French are not a sentimental, but an idealistic race. We English are just the reverse. We have never known beforehand what we wanted, nor what we were aiming at, and we could never have stated it clearly. In an emotional, blundering way we have stumbled into liberty and into empire, following whatever stirred our feelings at the moment: freedom of conscience, liberty for the slave, pity for the oppressed.

The appeal to the emotional in art therefore carried all before it in England under the teaching of Ruskin, and the severe and logical teaching of Viollet-le-Duc was in accordance with the spirit of the French, but was prevented from carrying the nation with it by its being (wrongly) identified with the history thrown aside at the Revolution and by its having roused against itself the centralised bureaucracy which in France rules education in all its branches. Space will not allow of going further into the question, but it would be an interesting thought to work out in detail.



E. E. VIOULET-LE-DUC
From the engraving in the *Dictionnaire Raisonné*, Vol. X.

REVIEWS.

THE GREAT FIRE

The Great Fire of London in 1666. By Walter George Bell, F.R.A.S. With Illustrations, including Plans and Drawings, Reproductions of English and Foreign Prints and Photographs. 82, Lond. 1920. 25s. net. (John Lane, The Bodley Head.)

Mr. Walter G. Bell has provided all lovers of London with a powerful and masterly word picture of the Great Fire—perhaps the most stirring event in the long history of the City. His work deservedly claims to be unique in affording the first complete account of the Great Fire and the great measures of reconstruction it necessitated, although many papers have been published dealing with various portions of the subject. His account of the spread of the conflagration from hour to hour, and day to day, is a thrilling piece of journalism—almost painfully fascinating in its realism and wealth of detail. He has gone to endless trouble in his search for facts: the Guildhall Library possesses an invaluable mine of information, but in addition he has perused innumerable Dutch and other foreign pamphlets which shed fresh light on the subject.

The overcrowded and insanitary condition of the old city at the time of the fire was almost scandalous, though the plague of the year before had thinned the numbers of the population to a considerable degree—56,558 deaths having been recorded in 1665 within the area of the Lord Mayor's jurisdiction alone.

The great conflagration broke out early in the morning of Sunday, 2nd September 1666. The insignificant nature of the fire at its first outbreak in Pudding Lane, just east of Old London Bridge, is well known, and it was not until some hours later that the possible magnitude of the calamity was realised. When the fire spread to Thames Street and began to feed its fury on the crowded warehouses it was at once clear that it was speedily getting beyond all control. Some little attempt was indeed made by destruction of buildings in the path of the fire to stay the conflagration, but the sparks and flames leaped over all obstacles. Later on, gunpowder was used to blow up houses, with considerably more effect, but even the comparatively wide course of the Fleet was insufficient to stay the onward march of the fire.

Panic very soon seized upon the citizens. Vague rumours of the origin of the fire by incendiarism by Dutchmen and Frenchmen were heard on every hand, and tales of armed enemy forces at one moment sent many valuable helpers off to arm themselves instead of fighting the fire. There was, indeed, some sort of reason for this fear: England was at war with Holland at the time, and, only a month before, British sailors had given over the Dutch town of Brandaris to the flames, and fireships had destroyed a hundred and sixty Dutch merchantmen in harbour.

Other tales afterwards ascribed the Great Fire to

the "Papists." Innumerable people were accused, and one Hubert was subsequently hanged on his own confession as the author of the great crime. Mr. Bell, however, shows that Hubert was a mere madman who chose to end his life in notoriety—it afterwards transpired that he did not reach London until two days after the fire began.

However it began, the fire spread with incredible rapidity, and leapt from house to house and street to street. Long before the fire reached Cheapside and the centre of the city was ablaze, it became obvious that very little could be done to stay the flames, and the only thing possible was to save the more valuable of the household goods and merchandise which filled the city. Every boat on the river and every cart within many miles of London were requisitioned to save the citizens' goods. The price of vehicles went up to fabulous rates, and as much as £40 was readily offered for a cart. Profiteering by watermen and carters went to enormous lengths, and merchants readily offered half their goods to ensure the safety of the other half. The block in the streets was terrific, and everything that had wheels was brought into the work of salvage. One even hears of valuable goods being rolled along in casks to get them out of harm's way.

And so Mr. Bell goes on with his thrilling narrative, and makes his readers enter fully into the feelings of the everyday Londoner who saw the labours of years disappearing in a few hours. Fire insurance there was none, so that the whole of the loss had to be borne by the unfortunate individual. The Guilds had their own Halls to rebuild, and public buildings innumerable had to be restored.

In a Paper read before the Institute in March 1918,* Mr. Bell gave a summary of the total destruction wrought by the fire in the four days it was at its height: 436 acres in all of crowded property were burnt, destroying some 13,200 houses, 87 churches, and innumerable public buildings, including Old St. Paul's, the Guildhall, Customs House and Royal Exchange. London was a smoking heap of ruins.

Such was the problem that faced the individual and the taxpayer—the rebuilding of these thousands of dwellings and scores of public buildings. Wren's plan and Evelyn's plan for a model city are both discussed, and it is evident that Mr. Bell's views on Wren's proposals have been considerably influenced by Mr. Sydney Perks's valuable Paper before the R.I.B.A. in December 1919 (JOURNAL Vol. XXVII, pp. 69-79).

Wren's plan for rebuilding was a magnificent conception, but was never adopted. The difficulties of doing so are illustrated by a plate showing his plan superimposed on the existing streets, and this gives some idea of the complete re-alignment of streets which Wren's plan would have involved. Like all superimposed plans, however, the illustration some-

* JOURNAL R.I.B.A. Vol. XXV, pp. 145-155.

what over-emphasises the differences. Wren's plan was prepared hurriedly in a few days from an incomplete survey, and it is obvious that had his design been adopted he himself would have modified it in many particulars in actual execution.

From the first, though, there was apparently very little prospect of either plan being adopted. The city, although a smoking heap of ruins, was anything but a cleared site, and the adjustment of the thousands of intricate interests involved by the introduction of a completely new plan was obviously too much for the City Fathers.

The rebuilding had to be undertaken almost at once, and people were clamouring to be allowed to rebuild as soon as their boundaries were staked out by the surveyors, so that apart from a number of widenings and improvements, and the opening out of certain new streets, such as King Street and Queen Street, and the construction of the new Riverside Quay, most of the streets were rebuilt exactly on the lines of the old buildings. Wren's riverside quay from the Tower to the Temple was a grand thing achieved, and it is to be regretted that it was gradually encroached upon by the wharf-owners, and finally lost barely a century ago, when Parliament in 1821 passed an Act whitewashing the offenders.

In addition to those prepared by Wren and Evelyn, a third plan was prepared by Robert Hooke, then Reader of Mathematics at Gresham College. This plan seems to have been preferred by the Lord Mayor and Aldermen, and obtained for Hooke the post of City Surveyor.

Mr. Bell also mentions another project that had an unexpected result—not altogether encouraging to competitors. Captain Valentine Knight, of his Majesty's Service, was moved to submit proposals of his own for restoring London. One daring novelty was a proposed canal 30 feet wide round the city from Billingsgate to Holborn Bridge. The author no doubt considered his scheme an attractive one, his estimate showing an annual profit to the Crown of no less than £223,500 per annum. Charles II., however, took the proposal in a different light, and at once ordered Knight to be arrested. "as if," says the *Gazette*, "his Majesty would draw a benefit to himself from so public a calamity." In gaol the unsuccessful competitor had leisure to reflect on the uncertain favour of princes!

The emergency measures for dealing with homeless London in 1666 are interesting. Moorfields and Finsbury, and every available open space, were used as a temporary camp for the dis-housed citizens. Ample food supplies from the country came in daily, and very speedily arrangements were made for carrying on the work of the business community. The covered walks and garden of Gresham House offered temporary facilities for merchants to conduct business.

The Court of Aldermen met on the 6th September, and the Common Council on the 10th at Gresham House, which for many months had also to serve as

the Guildhall. Its first order was to direct the late inhabitants to clear all the streets, lanes and public passages of rubbish, every one in front of his own premises. Until this was done, no labour was permitted on the ruins. In each ward a booth was set up, to which all occupiers were required to bring particulars of sites and area of ground, for record to be made, and a register was opened of those willing to buy or sell land.

Next in urgency was the temporary settlement of traders and craftsmen burnt out by the fire. A strong committee of Aldermen and Commoners was appointed, which met next day, with powers to apportion temporary sites on the city's vacant spaces, and to consider the best means of raising the city out of its ruins. The Corporation at once set an example to the citizens by taking steps for reviving communal life. A temporary wooden structure was raised within the ruins of the Guildhall, and the courts were able to be held there in the first week in November. Provision was temporarily made for the Customs and Excise offices. The Post Office was temporarily established, first in Brydges Street, Covent Garden, and a week or two later set up in Bishopsgate Street, and other public offices were temporarily accommodated in the Strand or Westminster. Markets were temporarily fixed at Bishopsgate, at Tower Hill, and at Smithfield, and Leadenhall was appointed as a general market for meat, fish, meal, hides and leather. Later on a weekly market for clothiers was established at Leadenhall, and a market was opened at Wapping. Financial help was forthcoming from all parts of the country—practically every town in the kingdom sent its contribution to the relief fund. A Royal Proclamation fixed the 10th October as a fast day, and commanded that collections for the aid of the sufferers in London should be taken in all churches throughout England and Wales, or from house to house, and forwarded to the Lord Mayor.

The poor of London had a sad winter before them. London remained desolate in its ashes, dotted all over with wooden sheds and shelters used as temporary habitations—often mere boards thrown across from wall to wall or over cellars. Into these the people packed after the manner of some of the villages of devastated France. Poverty was made the more bitter by the enormous rise in rentals; for a dwelling let before the fire at £40, the landlord claimed and obtained £150 rent. The poor, freezing in their hovels and cellars, were compelled to buy coal at £3 to £4 a chaldron, prices previously unheard of.

The Acts for Rebuilding the City have often been quoted as models of civic management, and the details of these Acts are well worthy of study. First it was essential to settle disputes promptly and on the spot; for this purpose any three or more of His Majesty's judges were authorised to hear and determine all disputes without charge. The court had power to cancel or revise existing covenants and leases, and to order new leases or extensions not

exceeding 40 years, the broad principle of administration being that "it is just that everyone concerned should bear a proportionable share of the loss."

Where landlord and tenant were alike ruined, and money was not available, the Lord Mayor and Aldermen, after due notice, were empowered to take possession of the sites and sell them to such as were able to build, the proceeds going to those entitled to them. The Fire Judges' Court, by its practice and example, speedily settled all disputes and made the rapid restoration of London possible. There was considerable difficulty in many cases, owing to the loss of such large numbers of title deeds and leases. Proof of 21 years' possession was, however, sufficient title, and the judges were not apparently worried with questions of "ancient lights."

The Rebuilding Acts of 1667 and 1670 laid down that all new building was to be of brick or stone. A number of street improvements were made, including the raising of Thames Street 3 feet, the making of King Street and Queen Street, and the reservation of land 40 feet wide along the whole river front of the city for a public quay, as suggested by Sir Christopher Wren. If only this new quay had been wider, it might have remained to this day: there may still be seen in front of the Custom House the only portion of the quay which has not been stolen. Labour troubles, financial troubles and material troubles there were in plenty, as with us to-day, but these were all grappled firmly in the Act for Rebuilding the City.

Labour was the first trouble. Mr. Bell says, "The trade guilds, though less autocratic than in mediæval times, still exercised commanding influence in the city. But if London was to be rebuilt, the guild privileges could not be retained. Labour by freemen alone was hopelessly insufficient," and some form of "dilution" was necessary. A clause in the Rebuilding Act met the case by laying down that:

"All carpenters, bricklayers, masons, plasterers, joiners, and other artificers, workmen and labourers, to be employed in the said buildings, who are not freemen of the City, shall, for the space of seven years next ensuing, and for so long time after as until the said buildings shall be fully finished, have and enjoy such and the same liberty of working and being set to work in the said building, as the freemen of the City of the same trades and professions have and ought to enjoy; any usage or custom of the City to the contrary notwithstanding. And that such artificers as aforesaid which for the space of seven years shall have wrought in the rebuilding of the City in their respective arts, shall from and after the said seven years have and enjoy the same liberty to work as freemen of the said City for and during their natural lives.

The old monopoly of the building crafts was gone, and craftsmen of all kinds flocked from the country to London. The Act authorised any two or more judges, when called upon, to fix the rate of wages in the building industries. If any man refused to work for the wages assessed, or, having begun work, left it unfinished, he was liable to a month's imprisonment or a £10 fine. Similarly the judges were given full power to fix the prices of materials and carriage after first calling

before them in conference brickmakers, tilemakers, lime burners, and others, trading within five miles of the Thames. The principle of "betterment" which has been so much argued in modern town-planning schemes was also included in the Act.

With all this, however, progress was slow. In the spring of 1668 Samuel Rolle estimated that there were 800 houses rebuilt in the flame-swept area. The outlook from any of them was most dispiriting—nothing but ashes and ruinous heaps on every side. The worthy divine goes on to say, "the major part of the houses built upon the ruins of London are let to ale-house keepers and victuallers, to entertain workmen employed about the city. In Cheapside and other centres of commerce, merchants had built dwellings, but refrained from going into them till the neighbourhood be increased, fearing thieves as well as unprofitable trade." From the Returns of the City Surveyors it appears that by December 1667 the foundations for only 650 houses had up to that date been staked out. But in the first six months of 1668 a beginning was made with the erection of 1,200 houses. In the spring and summer of 1669 the number of new houses under scaffolding was about 1,600, and this rate of construction continued for the next year.

It was four years after the fire, namely in 1670, before the rebuilding of the city churches was begun. 14 only, however, being undertaken that year. The general move westwards which had become apparent with the re-establishment of the Court after the Restoration became much more strongly pronounced, and in the neighbourhood of Covent Garden, in Henrietta Street, Charles Street and Bedford Street, many city shops were re-established. The years that followed witnessed a revival of the conflict between the old "free" labour of the city freemen and the labour of "foreigners," i.e. men from the country who came under the protection of the Act of Parliament to work in the rebuilding. The clash of interests never ceased, and when the demand for labour slackened the "foreigners" were pushed out of employment. In the height of the rebuilding, however, the demand for labour had been so keen that the King himself had to resort to the pressgang to secure sufficient masons and bricklayers for necessary work at Sheerness Dockyard.

That building supplies might be available, the Privy Council suspended for a term the restraints upon the free importation of timber, bricks and tiles. The Eastland Company, which carried a large Baltic trade, obtained a grant for two years to import timber and deals for the rebuilding of London, but only in ships manned by English mariners.

Even Pepys thought of speculating in timber. The city promoted a Bill to encourage the making of brick, tile and lime. Whitechapel enjoyed a thriving industry in burning bricks, yet still the demand outstripped the supply. The court of one city company, when contemplating rebuilding their Hall in October

1667, authorised the master, "if a pennyworth of timber or other material of building come to his hand, or he can hear of, to purchase the same."

There appears to have been no system of preferential building or control, but the rebuilding of the Exchange and other city buildings was much hampered by the impressing of workmen for the Royal Dockyards. Apart from labour and materials, there were constant difficulties as to finance. The city struggled along with the aid of loans, and the King agreed to temporary relief from taxation over the burnt-out area.

The Coal Dues, originally fixed at one shilling per chaldron on all coal brought into London, were the only direct financial assistance granted by Parliament, but in 1670 the Coal Dues were raised to three shillings per chaldron. Two years' receipts brought £76,000 to the city revenues. It is true to say that London was rebuilt on the Coal Dues, and for many years the financial revenue from this source was devoted to London improvements. The Coal Tax so recently as 1859, at 1s. 3d. a ton, brought in as much as £240,000 a year, and the tax was only finally abolished in 1890.

After the rush of building, some six years or so after the Great Fire, came the inevitable wave of trade depression. The closing of the Exchequer in January 1672 caused grave financial loss. Even the "freedom of the city" itself gravely handicapped the establishment of new businesses. Liberty for workmen employed in the building trades had been wrung from the Companies by the public necessity, but there was no like privilege for the grocer or other tradesman not possessed of the freedom of the city.

It is startling to learn that there were in 1672 whole streets of houses new built within the city standing uninhabited, "and no person so much as asks the price of any." In February 1673 there were 3,423 uninhabited houses in the City—nearly one-sixth of the total in the City and Liberties. Altogether 9,000 houses were erected. The city was built substantially of red brick, with artistic care on doorways and detail. The style merges into that of William & Mary, then Queen Anne, and later on that of the early Georges.

Sir Christopher Wren, almost alone among his contemporaries, was privileged to see the completion of his work. After 35 years of patient toil, the stately Cathedral of St. Paul's emerged from its scaffolding, and the rebuilding of London was at last complete.

The chapter in Mr. Bell's book dealing with the church settlement forms a fitting conclusion to the book. The appendices which he adds throw fresh light from contemporary documents in contemporary language on the Great Fire itself and the great period of stress through which London at length emerged triumphant. His is a book to read—it is full of thought-creating suggestion—full of the pride of the city. London, risen from its ashes, is a city of which to be proud.

W. R. DAVIDGE [J.].

ARCHITECTURAL EDUCATION.

Papers read at the Franco-British Conference held at Paris, 12th-13th November 1920.

I. — THE INSTITUTE EXAMINATIONS.

By PAUL WATERHOUSE, M.A. Oxon., F.S.A. [F.],
Chairman of the Board of Architectural Education.

I leave to my English colleagues the task of giving a detailed account of our educational system, reserving for myself an attempt to portray in the course of a few minutes the past history which has led up to our present position, and the hopes for the future to which that position gives rise.

There is always a danger that one may not see the wood for the trees; that is why I confine myself to the wood, leaving the trees—which are the essential elements of the situation—to others, and I am aware of the rashness of attempting to deal with so large a subject in so small a way. Our French colleagues may rest assured that in thus coming before them with information about our English affairs we are not posing as instructors. Heaven forbid! We are only, like them, but perhaps with greater reason, searchers after the solution of a problem which concerns us on both sides of the Channel.

Here in brief is our history. Up to the middle of the nineteenth century pupilage was the only way to the profession. Armed with his father's money, the would-be architect tapped, so to speak, at the door of one of the great ones (would that they always had been great ones!), and when once the young man was admitted, the process was simply one of "wait and see." In any case the master got his fee—in most cases, or at least in many, the pupil got his brass plate and was recognised as a professional man.

Far be it from me to say that pupilage had not its good points. It certainly had them, but it had also its defects.

We owe it to the Royal Institute of British Architects that these defects—these dangers—were not overlooked. The Council saw that, even if the door to the profession was not an absolutely open door, it was a door without a key; and the first-fruits of their efforts to provide a key were, so to speak, the now almost forgotten Voluntary Examination which, besides merely passing (and ploughing), awarded "distinction" to those who reached a certain standard. In spite of the natural disgust which mankind feels towards examinations, the "Voluntary" was a moderate success; and though its "plough" was no bar to the Associateship (if indeed people were ploughed) it is at least a fact that those who in the year '63 successfully underwent the test were the first English architects who could claim that their entrance into the profession had some qualifying stamp. After all, the great value of the Voluntary was that it was the "thin edge of the wedge." The wedge itself began to make itself felt in 1882, when the Obligatory Examination came into force. The Institute had taken the

step of deciding that the "Obligatory" was the sole way of entrance to the Associateship. By that time and by that decision the die was cast, and we know what came with the casting of the die. Architectural education thereupon became systematised. I am quite aware that architectural classes already existed in our colleges, that there were even professors of architecture, and that the school of the Royal Academy had already rejoiced the hearts of its creators. But it is true, incontestably true, that from that day the system of instruction in architecture became unified—too much unified, some will say; but are they fair?

What was at that time the obvious duty of the Institute as head of the profession? It was, as no one dare deny, to establish a standard: not a standard of excellence—for examinations can never ascend to the High Heaven of Art—but a standard of insufficiency of ignorance if you like (for ignorance and knowledge are but relative terms) below which the entrance should be definitely barred. And so it was that education became standardised and stabilised, and passed out of the hands of the former architect-masters. Pupilage, as anyone could have foreseen, was doomed and almost dead; and it is to the honour of those leaders of the profession who thus lost their gains that they were the leaders of the movement that destroyed the system. Let us at the same time shed a tear over pupilage. The contact with the realities of architecture afforded by a good office gave the student something which he is at least in danger of losing under a scholastic and academic system. But the faults of pupilage outweighed its merits, and the architects of the past generation were wise as well as generous when they killed the goose that laid those golden eggs.

A word about crammers. Crammers or coaches sprang into birth with the advent of the Obligatory Examination, and naturally had to meet the suggestion that they stuffed their pupils with tabloid architecture which was to be discharged undigested on the day of the examination. One can only speak from experience, and I can only say of the instructor who crammed me that he was a first-rate teacher, and that he helped me to collect certain facts which have always been of use or of pleasure to my career as an architect. In any case, when people speak of crammers as an evil I am always inclined to answer that noxious crammers are, if they exist and prosper, a direct result of a bad examination system. If our examination, with its written and oral tests, cannot distinguish crammed knowledge from honest work the fault lies with the examiners.

To return to history. Schools were started, schools flourished and schools grew. This establishment and growth prospered even more when the old Obligatory Examination gave way to our present three-fold system of progressive tests. This, as you know, took place in 1887, and there is no need for me to enter here

into a description of those three examinations, the Preliminary, the Intermediate and the Final. The particulars which will be given by my English colleagues of the curriculum in the schools will make this plain and clear.

What I must allude to is the advent of the system of recognition. By a happy accident of language the French word for recognition means also gratitude, and if our French friends are led into thinking that by recognition we imply gratitude to the schools they will not be far wrong. It was in gratitude to these schools, which had reached a certain level of teaching, that the Institute granted them the privilege of exempting their pupils from our Intermediate Examination. The Institute, as we know, holds the reins as regards this exemption, retaining the power, through its external examiners, of withholding exemption from any particular pupils—or indeed from the whole school if the standard is not maintained. And as we know, there has arisen in quite recent days a most interesting development of the system of recognition—the granting to certain schools of advanced curriculum exemption under well-defined conditions from the Final Examination itself, or at least from a very large part of it.

I hope that from what I have said our French friends will have gathered some idea of the relationship between our Board of Education and the schools of the country. It is a relationship of confidence, of friendship, of encouragement and of control. I hope also that they will have gathered some notion of our hopes for the future—a future which is sure to be full of developments. France will assuredly share with us our desire for an energetic growth fostered under a rule of liberty, always spreading but always under the limits of a reasonable control. The control of this central power of ours can never be other than kindly, for it is the control of a mother hand, and the mother is proud of her children. She is proud of their birth, proud of their growth, and even proud of their sometimes clamorous cries for greater freedom. Is there not something significant in the change of title which our Board once underwent? The Board of Examiners became, you know, the Board of Architectural Education. The change certainly synchronised with a change of personnel which was enough to justify the alteration of appellation; but it has a wider significance. It proclaims to all the world what, after all, we all knew—that examination is only a humble tool in the hand of education. What we all seek after is the well-instructed architect. He is the aim. The way to get him is by education, and examination—which in itself is worth nothing—becomes as the gauge of education, as its stimulus, its encouragement and its test, a thing of value, a thing which is itself capable of infinite improvement, refinement, and—in some cases—of wise suppression.

II.—THE ARCHITECTURAL ASSOCIATION SCHOOLS.

By HOWARD ROBERTSON, S.A.D.G., Principal, Architectural Association Day Schools.

In order properly to appreciate the educational scheme adopted by any particular architectural school in England at the present time, it is necessary to understand the conditions pertaining in the architectural profession during the years preceding the war. It must be confessed that architectural education is still in a comparatively elementary stage, and this results largely from the fact that up till a few years ago architectural schooling as such was practically non-existent, and when it did exist it was not based on any organised plan but depended largely on the personality of the school principals and their staffs. In the place of the schools was found the system of pupilage, where the would-be student was articulated to an architectural practitioner for a term of years, and sought his education at the hands of one or two architects who gave more or less instruction according to individual circumstances. Due to this system the architectural training received varied from good to bad, there being no criterion or standard other than individual taste, and no tradition beyond that of the particular office which received the pupils. The element of competition was absent, and consequently there was no incentive or necessity for giving each pupil the best possible training for his money.

The Architectural Association Schools have developed since 1901, during the period when pupilage was in vogue, and during the present epoch when the system is practically abandoned. It has, therefore, had to cope with the different conditions, and this has resulted in changes of method and a rather startling present-day growth. In addition to basic changes taking place in the system by which a student prepares for his ultimate professional work, there have been parallel developments as regards the Professional Societies and their Board of Architectural Education. These have been largely due to the strongly marked desire for a proper school training which would bring with it certificates of competency replacing the graded examinations in vogue during the "pupilage" period. The Architectural Association Schools have provided for this requirement by extending their course of studies so as to ensure a sound theoretical training, aiming at a standard rather higher than would be strictly necessary for the passing of the professional examinations. To secure this result, and so fit its students to become trained architects and potential wage-earners, is the aim of the school during its graduate and post-graduate courses, which, if fully followed, occupy a period of five school years.

It is realised that a good general education is a first requirement, and the school entrance examination is of such a standard as to ensure that the students have this, and that consequently they are entitled to exemption from the Preliminary Examination of the

Royal Institute of British Architects. After admission to the school, the students enter the graduate course of three years, the first two of which are in the elementary and the third year in the advanced school. Successful fulfilment of the three years' tests entitles students to exemption from the R.I.B.A. Intermediate Examination, and the diploma granted at the termination of the further two years of post-graduate work brings with it exemption from the R.I.B.A. Final Examination.

The work carried out in each of the five years has been systematised so as to be carefully graduated and to arrange to give the best possible results for the average students and not with the idea of forcing and obtaining startling results from a favoured few. It is possible briefly to recapitulate the various years and the work done in each.

The First Year students study the elements of buildings both in their architecture and construction. They receive explanations of the *raison d'être* of each element, these being synchronised with historical lectures showing the application of first principles. Geometry, perspective, freehand, sciography, and colour values, etc., are taught progressively, but pure design is only studied sufficiently to form a basis for construction. The lessons learned in technique and theory are finally applied during each of the three terms in the execution of classic detail such as the Orders.

In the Second Year the students specialise in portions of the practical and theoretical instruction given. More complex details of construction are studied and architectural design progresses based on historical periods—at first, compositions based on elements of the best examples of the principal periods, and, finally, original designs inspired by historical styles. Courses of lectures on history, decoration, construction, and the theory of design continue throughout all the years in the graduate course, and are synchronised with the practical work in the studios, while freehand and drawing are, of course, also studied.

The Third Year allows increased scope for design, there being no restriction to periods or styles, and construction is more advanced, working drawings being prepared with the design subjects as a basis. Twelve hour studies in design are frequent, and the teaching of composition in mass and detail occupies a proportionately larger time than in the second year. Design and construction are taken as one subject and not dissociated, and every effort is made to fit students for the commencement of outside work in architects' offices which will follow during the post-graduate course. A strong feature of the English architectural student has always been his attention to measured work and outdoor sketching, and every encouragement is given for the prosecution of these during the holidays.

In the Fourth and Fifth Years, forming the post-graduate courses, the curriculum is arranged to provide further training to an enhanced standard and

incidentally to satisfy the Board of Architectural Education. The time spent is almost evenly divided between advanced design and construction, with the addition in the Fifth Year of special subjects, such as "Decoration" or "Town Planning." It is also required that the students show proof of at least six months' experience in practical building work either during or after these years, before the final diploma is granted.

In addition to the five years' day course described, the Association provides an evening atelier for design and life drawing, to furnish proper educational facilities for those unable to attend the day school.

An interesting feature of the schools is the increasing number of female students, there being at present 27 out of a general total of over 200 in the day schools.

A word must be said regarding the spirit animating the staff in the teaching of design. In England there is no architectural teaching tradition as in France, and this has resulted in the past in a lack of sequence in method, but has given scope for the formation of a new teaching tradition which adapts the best methods of sister schools, however modified to suit the English temperament and English architectural needs. In the Association Schools acknowledgment is made to France for the training given in theory of design and composition: and from America much has been learned regarding the general organisation of the educational scheme. The school aims, however, at forming future architects who will have at their command a thorough theoretical and technical equipment, to be used not necessarily for the furtherance of one particular style or manner in architectural design, but rather as a basis for the satisfactory solution of the ever-changing problems confronting the architects of to-day and of the future.

(To be continued.)

CORRESPONDENCE.

Old Farming Implements.

17, John Street, Bedford Row, 29 Oct., 1920

To the Editor, JOURNAL R.I.B.A.,—

SIR,—I wonder if I may appeal to members of the Institute through the JOURNAL. I am endeavouring to make a series of drawings of old farming implements—wagons, wooden ploughs, and the like—and find it very difficult to obtain the material facts.

The petrol engine has invaded the fields and the price of scrap iron has gone up. John Bull is not a sentimentalist, and so for a pound or so these pleasant examples of peasant craftsmanship pass into the hands of the old iron merchant, and he has no compassion. I have appealed to the authorities at South Kensington to save just one plough and one wagon, but they could not be bothered and were not interested.

The Board of Agriculture are quite properly more concerned with stimulating two post-war blades of grass to take the place of the one of pre-war times;

their attitude is that history and tradition are all nonsense, and if posterity later on wants to know anything about old-fashioned methods, let them find out for themselves. "Push and Go" being the slogan for to-day. A certain amount of work has been done—there is a very charming book by Miss Jekyll, *Old West Surrey*, well illustrated and containing a good deal of information, but rather on the feminine household side, and not so much concerned with the stalwart types of the field implements. In various odd museums there are examples—even South Kensington has just one plough, and dotted about the countryside there may be others.

If architects would lend me any drawings they may possess, or care to make, I shall be very grateful. The JOURNAL might like to publish any very good types that may be discovered. It is work worth doing: there will come a time when people will want to know more about these things, and will call us vandals if we destroy them now without leaving any record.—Yours faithfully,

C. H. B. QUENNEL [F.].

Sheffield Civic Survey.

University of Liverpool, Department
of Civic Design, 9 Nov. 1920.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—The courteous note in which you refer to the Civic Survey of Sheffield immediately follows the description of the opening of the Civic Survey at the R.I.B.A. Galleries. You do not, however, state that this fortunate juxtaposition is intentional, and I would like to point out to you that the Civic Survey which is being undertaken by the Sheffield Corporation is a direct outcome of the example set by the Civic Surveys which were initiated and so ably supported by the R.I.B.A. It was after seeing the work which had been accomplished at the Manchester Centre of the War-time Civic Survey that the Development Department of the Corporation of Sheffield decided that it was necessary to prepare a similar survey for their city, with, however, the additional intention that the survey shall be followed at once by a development plan.—Yours faithfully,

PATRICK ABERCROMBIE [F.].

Empire Timber Exhibition, 1920.

Department of Overseas Trade,
35 Old Queen Street, S.W.1, 8 Nov. 1920.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—I beg to enclose herewith copy of report issued in connection with the Empire Timber Exhibition held in London during last July.

As you are aware, the Exhibition afforded a striking and timely demonstration of the almost inexhaustible resources of the Empire in timbers suitable for every use, and it is hoped that it will lead to a continually increasing demand for Empire and home-grown timbers.

From the financial statement, on page 18 of the report, it will be seen that no call has been made on public funds, and the Advisory Committee feel that their efforts to make the Exhibition self-supporting would not have proved so successful except for the great assistance given by the Press.

The Committee wish to express their acknowledgments of the help given by your publication.—Your obedient Servant,

HENRY COLE.
For the Comptroller-General

Dr. Brinckmann on Italian and French Architecture

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I have just received from Dr. A. E. Brinckmann, formerly Professor of Town Planning at Karlsruhe and now of the University of Rostock, a copy of his recently issued book on the architecture of the seventeenth and eighteenth centuries (*Die Baukunst des 17 und 18 Jahrhunderts*). It treats mainly of Italian and French work, and contains over 350 plates and illustrations of buildings and plans. Dr. Brinckmann deals with the subject with greater thoroughness than has probably ever before been attempted. It is published by the Berlin-Neubabelsberg Akademische Verlagsgesellschaft. Athenaeon, M.B.H., and I think all architects specially interested in the period covered would wish to know of this book. There is no price marked on the volume, but owing to the favourable exchange the price is not likely to be a serious obstacle. Dr. Brinckmann's able papers at the Town Planning Conference of 1910 will be remembered, and I may perhaps add that he was one of those whose voices were raised in their own country against the excesses of the War Party there.—Yours, &c.,

RAYMOND UNWIN [F.].

Books Received.

- Design and Tradition: A Short Account of the Principles and Historic Development of Architecture and the Applied Arts.* By Amor Fenn. (Universal Art Series, edited by F. Marriott). 80. Lond. 1920. 30s. net. [Chapman & Hall, Ltd.]
- A Handbook of Indian Art: Architecture, Sculpture, Painting.* By E. B. Havell, formerly Principal of the Government School of Art and Keener of the Art Gallery, Calcutta. La. 80. Lond. 1920. 25s. net. [John Murray, 50A Albemarle Street, W.]
- The Liverpool University Architectural Sketch-book.* Edited by C. H. Reilly and L. B. Budden. 40. Lond., 1920. [Technical Journals, Ltd., 27-29, Tothill Street, Westminster.]
- Compte-Rendu de la Conférence Nationale de l'Habitation à Bon Marché, Bruxelles, 24-26 Avril 1920.* Publication No. 12. [Union des Villes et Communes Belges, 3bis rue de la Régence, Bruxelles.]
- Report on Compulsory Adoption of the Metric System in the United Kingdom* submitted by the Metric Committee appointed by the Conjoint Board of Scientific Studies and published on the authority of the Committee. 1s.
- National Physical Laboratory. Supplementary Report for the year 1918, and Scheme of Work for the year 1919-20.* 1s. 6d. net. [H.M. Stationery Office.]
- National Physical Laboratory. Report for the year 1919.* 5s. net. [H.M. Stationery Office.]
- Some Economies in School Construction* (Nobbs and Hyde, Architects). For Protestant Board of School Commissioners, Montreal. Reprint from the *Architectural Forum*, May and June 1920.
- Department of Scientific and Industrial Research. Fuel Research Board Special Report No. 3. The Coal Fire: A Research by Margaret White Fishenden, D.Sc., for the Manchester Corporation Air Pollution Advisory Board.* 4s. net. [H.M. Stationery Office, Imperial House, Kingsway.]

AN ART CRITIC ON ARCHITECTURAL DESIGN.

(From *The Times*, 11th November, 1920.)

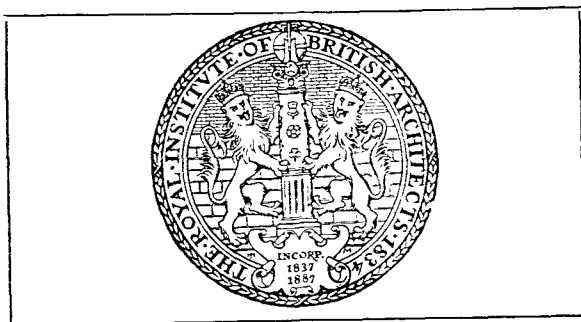
In designing the Cenotaph, Sir Edwin Lutyens has not tried to pile up a collection of architectural features but to design something that looks like what it is, a cenotaph. It is the common sense of the design that has surprised us, used, as we are, to anything but common sense in our monuments. It says simply and precisely what it has to say, like a Greek Epitaph; and people find that they prefer this to nymphs and wreaths and crowns and pilasters all saying nothing in particular.

The success of Sir Edwin Lutyens is, indeed, a proof that we are beginning to understand something of the art of building: for he is not, like the popular architects of the past, learned in the imitation of past styles. It asked to build a church, his problem—as we can see from his two churches in the Hampstead Garden Suburb—is not to make us think that his new church is an old one, but simply to build a good church, suited to its site and its material and to the needs of a modern congregation. His object, when he designs a moulding, is not to make it Gothic or Palladian, but to lay the right emphasis in the right place. . . .

But he is not ignorant or contemptuous of tradition: he knows that for ages great men have been solving the problems he has to solve; and he makes use of past experience just as if he were a designer of motor cars. He knows that no one could build better town houses than Wren built: so, when he builds a house in St. James's Square or the offices of *Country Life*, he gets all he can from Wren and does not try to design something utterly unlike any house that ever was seen. He knows that art which has no past has no future. So you might call him eclectic, except that he chooses always on a principle and does not try to combine all excellences in some abstract and characterless perfection.

It is the particular problem that dictates his choice, the problem of site, purpose, and material: a building to him is not a building merely, but a town house, a farm, a church, or a public building. So his country houses are based on the old building of the neighbourhood: in Surrey he uses the pleasant old devices of Surrey builders, but always for his own purposes and always with the object of making, not a picturesque collection of architectural features, but a house good to live in. Hence, no doubt, his success: people find that his houses and gardens are good to live in as well as pleasant to look at; and, in the long run, no house will be pleasant to look at that is not good to live in. Beauty in building comes of solving the practical problem handsomely, not of sacrificing the inside to a "precious" façade.

The greatest work of this architect is unfinished and far away; he, with Mr. Baker, is fortunate in an opportunity such as comes to few modern architects, the creation of a new city. But India, also, is fortunate in that the Delhi buildings are being built in our time and not fifty years ago. Then the one question would have been—What shall they imitate? The Cloth Hall at Ypres? or St. Peter's at Rome? or the Taj-Mahal? Now, for Sir Edwin Lutyens, that is not the question. He can forget all forgeries in his particular problem, of purpose, of site, and of material; he and other architects have gradually educated the public in the first principles of building; he has taught us, and we begin to see, that there cannot be beauty in architecture without common sense.



9 CONDUIT STREET, REGENT STREET, W., 20th Nov 1920.

CHRONICLE.

Franco-British Conference on Architectural Education.

The Conference on Architectural Education, organised by the R.I.B.A. and the Société des Architectes diplômés, was duly held at Paris on the 12th and 13th November in accordance with the programme detailed in the last issue of the JOURNAL, and is pronounced by all who took part in it as an exceedingly interesting and highly successful meeting. Lieut.-Colonel H. P. Cart de Lafontaine, O.B.E. [A.], hon. secretary of the British Conference Committee, states that this meeting was part of a scheme for promoting cordial relations between architects in the two countries. The idea of arranging exchange exhibitions of drawings and visits had occurred to him some ten years ago when, as a student in one of the ateliers of the Ecole des Beaux-Arts, he was struck by the almost complete lack of contact between British and French architects. The idea of establishing closer relations between the societies of the two countries was cordially welcomed by architects on both sides of the Channel. Early in 1913 the Architectural Association of London organised an exhibition of selected drawings by students of the Ecole des Beaux-Arts, kindly lent by the French Government, and on that occasion they had the pleasure of welcoming a number of distinguished French architects in London. This event was followed, in 1914, by a considerably more important undertaking—a representative exhibition of British architecture comprising five sections: Historical, the Colleges of Oxford and Cambridge, the City Churches, and British Gardens, etc.; the Architecture of the Nineteenth Century; Modern Work; Water-colour and Pencil Sketches; and Students' Work. This exhibition aroused a considerable amount of interest, not only amongst architects, but amongst the general public, and notices appeared in about 200 Paris and provincial newspapers. A number of British architects visited Paris on that occasion and were most hospitably received by their French confrères, and it was decided that there should be a further meeting in London at some date in the near future.

British architects present at the Conference on the 12th and 13th included: Mr. John W. Simpson, President R.I.B.A., Membre Corr. de l'Institut de France;

Mr. Paul Waterhouse, M.A., F.S.A. [F.], and Mr. W. G. Newton, M.A., M.C. [A.] Chairman and Hon. Secretary respectively of the Board of Architectural Education; Mr. Alexander N. Paterson, M.A., A.R.S.A. [F.], President of the Institute of Scottish Architects; Professor C. H. Reilly, M.A. [F.], Director of the School of Architecture, Liverpool University; Professor Patrick Abercrombie [F.], Head of the Department of Civic Design, Liverpool University; Mr. H. M. Robertson, S.A.D.G., Principal of the Architectural Association School of Architecture; and Mr. Arthur Davis [F.], Founder of the London Ateliers. Mr. G. Gilbert Scott, A.R.A. [F.], President of the Architectural Association, who had arranged to attend, was prevented at the last moment by indisposition.

The first session of the Conference was held at the Ecole des Beaux-Arts on Friday, 12th November. The British delegates were received in the courtyard of the Ecole by M. Lafolloye, Vice-President S.A.D.G., in the unavoidable absence, through illness, of M. Louvet, the President. After a few moments of conversation the delegates assembled in the Salle de Construction at 2 p.m., and M. Paul Léon, Director of the Ecole, opened the proceedings with a short speech of welcome to the British delegates, and having briefly alluded to the previous meetings which had taken place between architects of the two countries, he said it gave him great pleasure to have the honour of presiding at the first session of a Conference which marked the resumption of these cordial relations.

The session having been declared open, the following Papers were then read in French:*

"A Survey of Architectural Training at the Ecole Nationale et Spéciale des Beaux-Arts," by M. Jules Godefroy, Chef d'Atelier et Membre du Conseil Supérieur de l'Enseignement de l'Ecole des Beaux-Arts.

"A Survey of the Scientific and Constructional Training at the Ecole des Beaux-Arts," by M. Arnaud, Professeur de Construction à l'Ecole des Beaux-Arts.

"The Relations between French and British Architects," by Mr. John W. Simpson, President R.I.B.A.

"Architectural Education in Great Britain," by Mr. Paul Waterhouse.

"The Architectural Association Day Schools," by Mr. Howard Robertson.

"The School of Architecture of the University of Liverpool," by Professor C. H. Reilly; read by Professor Patrick Abercrombie.

"The Position of Architectural Education in Scotland," by Mr. Alexander N. Paterson; read by Mr. Arthur Davis, who also gave a brief statement with regard to the London Atelier, of which he was the founder and first "Patron."

"The Study of Old Buildings," by Mr. Arthur Keen, Hon. Secretary R.I.B.A., read by Lieut.-Colonel Cart de Lafontaine.

In order to give members an opportunity of preparing notes for the discussion which was arranged for the second session of the Conference, copies of the French versions of the Papers read by British delegates had been printed and were distributed at the first session.

*Mr. Waterhouse's and Mr. Robertson's Papers are published in the present issue; the others will appear in subsequent issues.

On the conclusion of the Papers it was resolved, on Mr. Simpson's motion, that a message of sympathy should be sent to M. Albert Louvet, President S.A.D.G., expressing the regret of members at his unavoidable absence, together with their best wishes for his speedy restoration to health. M. Laloux, Membre de l'Institut (who took the chair on the departure of M. Léon), in closing the meeting, thanked the delegates for their valuable contributions to the common stock of architectural knowledge, which, he said, could not fail to assist them in the search for improved methods of training.

On Saturday, 13th November, members assembled at the Ecole des Beaux-Arts and visited the principal galleries under the guidance of MM. Lafolloye and Godefroy and other members of the S.A.D.G. The collection of Grand Prix de Rome works in the sections of Sculpture, Painting, Medals, and Engraving were examined with much interest, but it was remarked that the Grand Prix designs in the section of architecture were not exhibited. Some of the "Loges" where the *concours* take place were also visited, and the collection of casts, etc., was inspected.

Members of the Conference then assembled at the Hôtel des Sociétés Savantes, in the Rue Danton, where the British delegates were entertained to luncheon by the Société des Architectes diplômés.

This function, which was of an informal character, was presided over by M. Nénor, assisted by M. Lafolloye. Among French architects and guests present were the following: - MM. Girault, Membre de l'Institut, R.I.B.A. Gold Medallist 1920; Bonnier, sous-Secrétaire de l'Ecole des Beaux-Arts; Louis Bonnier, Past President S.A.D.G., Inspecteur-Général des Services d'Architecture et d'Esthétique de la Ville de Paris; De rasse, Inspecteur-Général des Bâtiments Civils; Mora, Secrétaire-Général du Syndicat de la Presse artistique; Mollet and Letrosne, Vice-presidents S.A.D.G.; André, Chef d'Atelier de l'Ecole des Beaux-Arts; Godefroy, Chef d'Atelier, Secretary to the French Committee of the Conference; Schneider, Hon. Secretary S.A.D.G.; Poupinel, Hon. Treasurer; Guadet, Thonmy, Richardière, Bérard, Danne, etc.

At the conclusion of the repast M. LAFOLLOYE expressed the pleasure they had in entertaining their distinguished British colleagues, and said that it gave him great pleasure to announce that they intended to give immediate effect to the suggestion made by the President of the R.I.B.A., Mr. Simpson, that they should found a Franco-British Union of Architects. He was sure that such a union could not fail to assist in the maintenance of the cordial relations which they all so much desired between architects of the two countries.

M. NÉNOR then proposed the health of Mr. Simpson, and said that it had given him particular pleasure to be able to preside at this informal gathering of his colleagues from both countries. Nothing it seemed to him now remained to be done but to "*Tamiser la*

Seine et seigner la Tamise" to finally remove any difficulties in securing this entente.

Mr. JOHN W. SIMPSON, replying to the toast, said: Au nom de mes camarades de la Grande-Bretagne j'ai l'honneur de vous dire combien nous sommes émus, combien reconnaissants, du généreux et cordial accueil que nous a fait la Société des Architectes Diplômés par le Gouvernement. Nous vous remercions bien sincèrement, tout en nous promettant la satisfaction d'un témoignage plus positif de la reconnaissance que nous éprouvons lorsque nous aurons le bonheur de vous recevoir en "Old England." Il me semble que cette visite à Paris de notre petite délégation n'est pas sans une certaine signification. C'est la première fois que les architectes de nos deux pays se réunissent depuis le mois de juillet 1914, lorsque nous étions conviés dans cette ville pour étudier les détails d'un Congrès International qui devrait avoir lieu à Petersburg en mai 1915. Que de choses se sont passées depuis! Pourquoi, cependant, puisque nous venons de célébrer le deuxième anniversaire de l'Armistice, a-t-on si longtemps différé cette réunion si pratique, si nécessaire? Pour celui qui a fait l'année dernière, comme moi, la navrante traversée des régions dévastées par la guerre, la réponse n'est pas douteuse. Le temps n'était pas encore mûr. Il a fallu trouver les moyens matériels pour subsister, pour se nourrir, avant même de penser à se loger convenablement. Je viens justement de faire, une seconde fois la visite aux champs de bataille dans le but de choisir les assiettes où seront érigés les monuments à nos héros qui se sont battus côte à côte de leurs camarades de la glorieuse armée de la France. Quelle différence s'est déjà faite! J'en suis revenu tout joyeux d'avoir constaté la vie active qui se voit partout. Le commerce renaît, les petites maisons poussent parmi les ruines, on déblaye les affreux décombres, les routes sont miraculeusement renouvelées. La reconstruction est en pleine marche: c'est le moment de réunir les architectes, de considérer les problèmes de leur éducation. Voilà pourquoi nous nous trouvons groupés autour de cette table hospitalière. Messieurs, nous félicitons votre pays de vos travaux. A mon tour j'ai l'honneur de porter un toast. Je lève mon verre à la santé de nos hôtes. Vive la France! Vive la République! Vive la Société des Architectes Diplômés.

M. BONNIER, of the Ecole des Beaux-Arts, who on rising expressed his great regret at having been prevented by an important official engagement from personally conducting them round the Ecole des Beaux-Arts, said members would be interested to learn that they had that day decided that the subject of all future *projets* would be announced one month before the programme was issued: they hoped this would give students an opportunity of studying existing buildings and not relying only, as was at present too often the case, on the study of previous projects.

M. GIRAULT, Membre de l'Institut and R.I.B.A.

Gold Medallist, in a brief speech, cordially supported the proposal to form a Union.

Mr. CART DE LAFONTAINE, Hon. Secretary of the British Committee, proposed the health of the Press of the Allied countries, coupled with the name of M. Mora. After a brief reference to the assistance M. Mora had given them at their previous meetings, more especially in connection with the Exhibition of British Architecture in Paris in 1914, Mr. Lafontaine said he thought they would all agree that meetings of this kind were of real value in cementing the Entente. He felt they, as artists, had a special mission to lead the way in giving a practical proof of the lasting friendship between England and France which had stood the test of war, and to-day was as true and strong as in those hours of anxiety and doubt. They must not be content to rely on the official relations of their two Governments, but should supplement these by their own endeavour, and remember that Governments under present conditions only moved in response to public opinion and pressure. It was in voicing this opinion that the Press of both countries could assist them towards the achievement of their common ideal, the close and lasting friendship of Great Britain and France.

M. MORA briefly replied, and members adjourned to the rooms of the S.A.D.G., where a discussion took place on various questions resulting from the papers read at the first session of the Conference.

A visit was then made by kind permission of M. André, Chef d'Atelier de l'École des Beaux-Arts, to his atelier and British delegates had an opportunity of seeing a practical exposition of the training of the Beaux-Arts School.

This terminated the official programme of the Conference, as it was arranged that members should return to London independently. It was generally agreed that the meeting had been successful both in promoting good relations between the architects of the two countries and in helping to remove some of the difficulties in the path of architectural education.

R.I.B.A. War Memorial Competition : The Award.

The designs submitted in competition for the Memorial to Members, Licentiates and Students fallen in the War will be on view in the Institute Galleries for one week commencing Monday, 22nd inst. The Memorial is to take the form of a Wall Tablet to be placed in the Hall of the Institute premises, the conditions of competition stipulating that it should be so constructed that it may be removed and re-erected elsewhere in the event of this being necessary at some future time. Its total cost fixed complete is not to exceed £500, exclusive of honorariums and premiums. The competition was restricted to Members, Licentiates, Students and Probationers who had served in H.M. Forces during the War. Forty-two designs were submitted, and these have now been adjudicated upon by the President, the Assessor appointed by the Council. His

award, which was announced at the General Meeting last Monday, is as follows :—

FIRST, Mr. TRENWITH LOVERING WILLS, *Student of R.I.B.A.*, awarded an honorarium of One Hundred Guineas.

SECOND, Mr. W. HARDING THOMPSON [A.] awarded a premium of Thirty Guineas.

THIRD, Mr. ROBERT GROMIE [A.] awarded a premium of Twenty Guineas.

Mr. Trenwith Wills who is placed first, is up for election as Associate at the Meeting of the 29th. Both he and Mr. Harding Thompson, who is placed second, were Students under Professor Reilly at the School of Architecture, Liverpool University.

R.I.B.A. Students : Annual Fee for Library.

Under the provisions of By-law 48 the Council of the Royal Institute have decided that all Students on the R.I.B.A. Register shall, in future, be required to pay an annual Studentship fee of 10s. 6d. The first annual fee will become due when the Student is entered on the Register. Thereafter it will be payable on the 1st January in each year as long as the Student remains on the Register.

The income derived from the annual fees of the Studentship class will be allocated to the support of the Library, and, in particular, for the provision of additional books for the Loan Collection.

Model Conditions for Housing Competitions.

During the present year the Competitions Committee have given much consideration to the subject of Competitions for Housing Schemes. In some respects the ordinary Competition Regulations do not strictly apply to such Competitions, and for the information of members and the guidance of local authorities the Committee have drawn up a set of Model Conditions. These have been considered and adopted by the Council of the Institute, who have directed that they be published in the JOURNAL.

The Model Conditions are set out in the following form :—

PROPOSED SCHEME FOR COTTAGES FOR THE HOUSING OF THE WORKING CLASSES.

CONDITIONS OF COMPETITION.

1. The Council of being desirous of erecting . . . cottages for the working classes invites Architects to submit designs in competition.

2. The Council has appointed as Assessor, whose decision shall be final.

3. The Authors of the designs placed first, second and third will be paid the sums of £ respectively.

4. The Author of the design placed first will be appointed Architect to the building scheme, subject to his satisfying the Assessor that there is no valid objection to his employment, and his remuneration will be according to the Schedule of Charges agreed by the Ministry of Health and the Royal Institute of British Architects (Housing Schemes).

5. If for any reason the work is abandoned or postponed for a period of one year he shall receive a further sum for his services in connection with the preparation of the Com-

petition drawings equal to one-fifth of the fees which would have become payable to him on the estimated cost, had the work not been abandoned or postponed, and a copy of his drawings shall become the property of the Council. In the event of the works being ultimately proceeded with the fees already paid to the Author of the design placed first shall form part of his ultimate commission.

6. All designs, other than that placed first, will be returned to their Authors, carriage paid.

7. Everyone will be taken of the designs, but the Council will not be responsible for any damage they may sustain, nor for their loss.

8. Each set of drawings is to be sent in without any name or device thereon, but accompanied by a sealed envelope containing the name and address of the Author and his declaration that the design is his own personal work, and that the drawings have been prepared under his supervision.

9. The designs are to be delivered carriage paid to the not later than They are to be delivered flat.

10. Competitors desiring further information must send their questions to the not later than

Such replies as may be considered necessary will be sent to each competitor and will form part of the Conditions.

11. The competitor should be guided by the suggestions contained in the Manual issued by the Ministry of Health.

12. The following drawings are required and no others will be considered :

13. The following particulars are required to be stated :
No Promoter of a Competition, and no Assessor engaged upon it, nor any employee of either shall compete or assist a competitor, or act as Architect, or joint Architect, for the proposed work.

Any attempt on the part of a competitor to influence a member of the Committee or the Assessor, or to make known his identity, will disqualify him.

SUGGESTIONS TO COMPETITORS (not conditions).

[Here follows blank space for suggestions.]

International Competition for New Hospital in Cairo.

The *Morning Post* of the 3rd inst. gives the following account of the Egyptian Government's scheme for building what is officially described as "the finest and most complete Medical School and Hospital in the world" :—

The building is to contain 1 225 beds, and will have accommodation for 3,000 out-patients a day. Attached will be a completely equipped Medical School, which will be connected with the projected University, a special dental department, and departments for every branch of medical and surgical science. The Committee entrusted with the arrangements is representative of the Ministries of Public Works, Public Health, Education and Finance, and the Kasr el Aini Hospital and Medical School.

The existing Kasr el Aini Hospital, built by Mohamed Ali early in the last century, has become inadequate to the needs of the city. The Egyptian Government, with the cordial approval of his Highness the Sultan, therefore decided to build a new hospital and medical school. By virtue of the decision of the Council of Ministers of 17th August last, Mr. John W. Simpson, President of the Royal Institute of British Architects, was especially

engaged by the Committee to act as expert consulting architect, and, in the event of a competition being invited, as assessor for the Egyptian Government. Mr. Simpson accordingly visited Cairo in September, and at the request of the Committee selected the site for the new hospital, formulated its requirements in consultation with the Government departments and officials concerned, and drew up the conditions regulating an international competition. The recommendations of Mr. Simpson were accepted by the Committee, and invitations to architects to compete will shortly be issued in English, French, Italian and Arabic, both through the representatives of various Governments in Egypt and by public advertisement. The work will be one of the largest and most important in the world.

The site selected is of some 48 acres, and lies in the northern part of Rôda Island, which is south of the main city of Cairo, north of old Cairo, with Giza on the west side of the Nile. It is thus free from the dust of the desert stretching east of Cairo, commands a magnificent prospect, and is easily accessible. The new hospital, moreover, will be adjacent to the projected new University, at which medical students will attend certain courses, and is close to the existing hospital of Kasr el Aini, a part of which can be utilised for the laboratories of the University. At Giza, across the river, the schools of Engineering, Law and Agriculture are already established in connection with the University. Arabian medical science had attained a singular eminence ere Europe had risen from a state of barbarism; and the new Hospital and Medical School of Rôda Island will be a happy combination of the highest scientific development of East and West.

In respect of the building itself the Egyptian Government determined from the first to obtain the best; and to this end they have accepted the recommendations of Mr. Simpson to hold a double competition. The first is to be open to architects of all nations, from whose designs six competitors will be selected to enter the second competition, in which six other competitors, to be selected by his Highness's Government and the assessor, will compete. A substantial honorarium is awarded to selected competitors; and the competition will be conducted under the rules and with the help of the Royal Institute of British Architects, whose President, Mr. John W. Simpson, will be the assessor. The sincere desire on the part of the Sultan and his Highness's Government to do their best for their country, and at the same time to give that free scope to the medical and architectural professions which alone can ensure the success of the enterprise, provide an instructive example of enlightened procedure.

The L.C.C. and the Office of Works.

After the publication of Sir Frank Baines's suggestion for a National War Memorial for London, the London County Council made representations to the Government that as the improvement authority for London the Council should be given an opportunity of considering and expressing its views upon any such scheme. The First Commissioner of H.M. Works replied that his Department had no concrete proposal for the erection of a National War Memorial in London and had no knowledge that there was any intention of erecting such a memorial. He stated, however, that should his Department at any time have to deal with

a proposal to erect a memorial there would be no objection, so far as his Department was concerned, to the Council having an opportunity of expressing its views on the matter.*

The London County Council, in response to an invitation by H.M. Office of Works to appoint a representative on a Committee which deals with sites and statues, presided over by the First Commissioner of Works, have appointed Mr. Andrew T. Taylor, F.S.A. [R.F.], on the understanding that the Council is by such representation in no way committed as to its policy.

The Threatened City Churches.

In view of the interest attaching to the proposals of the City of London Churches Commission†, the L.C.C. have published together in book form (1) a Report by the Clerk of the Council dealing with the historical interest attaching to the churches recommended for removal and the way in which the money for their erection was provided; (2) a Report by the Architect dealing with the architectural and antiquarian features of the buildings, and (3) General Observations. A number of photographs have been included, as well as a plan which shows the position of (a) the nineteen churches, (b) the churches which would remain if the proposals of the Commission were carried out, (c) the churches which were rebuilt after the Great Fire of 1666 and have since been demolished, (d) the churches which were burnt down in the Great Fire and have not been rebuilt, and (e) the old City wall, the present City boundary, and the area of the Great Fire.

Catalogue of British Empire Timber.

The Empire Timber Exhibition held during July last was organised by the Department of Overseas Trade with the object of bringing into more universal use the numerous though little known timbers of the Empire. During the war many of the foreign sources of supply were cut off, and recourse was had to Empire-grown (including home-grown) products, with results which were unexpectedly satisfactory. The Department of Overseas Trade announces that copies of the Exhibition Catalogue are still available. The Science Standing Committee, who had the volume before them at a recent meeting, express the opinion that it contains a large amount of information which is of the utmost service to architects and builders, and members would do well to have a copy at hand for reference. The exhibits numbered 627, all of which are described in the catalogue, and the properties and characteristics are given of many important Empire-grown timbers hitherto unknown in this country and which could be

very usefully employed in our manufactures. Where possible, the uses are suggested to which the various kinds of timber exhibited could most effectively be applied. The price of the catalogue is 2s., and copies can be obtained from the Department of Overseas Trade (Development and Intelligence) 35, Old Queen Street, S.W.1.

The Royal Engineers' Memorial.

The Royal Engineers have decided to hold an open competition for a memorial to be erected near the R.E. Institute, Chatham, to the Royal Engineers of all ranks who have fallen in the war, the memorial to include specific reference to the late Lord Kitchener. Sir Reginald Blomfield, R.A., will be the assessor. Conditions of the competition can be obtained on application to the Secretary, R.E. Memorial Sub-Committee, R.E. Institute, Chatham.

Eighteenth Century London.

The Eighteenth Century in London: an Account of its Social Life and Arts, by Mr. E. Beresford Chancellor, the well-known authority on the squares and private palaces of London, is in the press and will shortly be published by Messrs. B. T. Batsford, Ltd. Such aspects of contemporary life as the pleasure resorts, clubs, coffee-houses and taverns, palaces and churches, as well as the Arts in the eighteenth century, all find a place in the work. Nearly 200 illustrations, beautifully printed in sepia, are given from original drawings and paintings, contemporary prints and engravings depicting the life and appearance of the London which has vanished, and existing remains of the period are shown by photographic illustrations. The book will be published at 35s. net.

"The Royal Mummies"

Professor G. Elliot Smith, F.R.S., will give a lecture on "The Royal Mummies," on behalf of the Egypt Exploration Society, in the lecture room of the Royal Society, Burlington House, on Thursday, 25th November, at 8.30 p.m. Tickets will be sent gratis on application (if a stamp is enclosed to cover postage) to the Secretary, Egypt Exploration Society, 13, Tavistock Square, W.C.1.

The Concrete Institute

The following is the programme of Papers to be read before the Concrete Institute this Session, at Devon House, 206, Vauxhall Bridge Road, Westminster:—

Thurs., Nov. 25, Presidential Address, by Mr. E. Flander Etchells [Hon. A.L. A.M.Inst.C.E., A.M.I.Mech.E.].

Thurs., Dec. 16, "Special Applications of Reinforced Concrete in Docks, with Specific Reference to the Gates at Tilbury Docks," by Mr. H. J. Deane, M.Inst.C.E.

Thurs., Jan. 13, 1921, "Tests on High Tensile Steels," by Mr. H. Kempton Dyson.

Thurs., Jan. 27, "Geology in Relation to Building Stones," by Mr. J. Allen Howe, B.Sc., F.G.S.

Thurs., Feb. 24, "Methods of Securing Impermeability in Concrete," by Mr. Ewart S. Andrews, B.Sc. (Eng.).

Thurs., Mar. 31, "Stresses in Structural Steel," by Mr. S. Bylander, M.J.I.E.

Thurs., Apr. 28, "The Elastic Modulus of Concrete," by Prof. F. C. Lea, D.Sc., M.Inst.C.E.

Thurs., May 25, "Land Subsidence and its Effect on Concrete and other Structures," by Mr. Lawson S. White.

* It will be remembered that Sir Frank Baines's design was hung in the tea-room of the House of Commons for the inspection of members, and that a discussion on the subject took place in the House. Sir Alfred Mond said that Sir Frank Baines had prepared the design on his own initiative and in his own time, and that it had never been put forward for official consideration. This particular scheme, he said, he regarded as quite dead. (JOURNAL R.I.B.A., 31st July 1920, p. 124.)

† JOURNAL R.I.B.A., 20th May, p. 357.

Miscellaneous Items.

Mr. W. E. RILEY, R.B.A. [F.], will represent the President at a deputation which is to wait upon Sir L. Worthington Evans to lay before him their views on certain provisions of the Government of Ireland Bill which affect the interests of the technical and professional Civil Servants dealt with in the Bill. The points raised are indicated in the President's letter to the Chief Secretary for Ireland on 6th August last [see JOURNAL R.I.B.A. for 25th September, p. 477].

Mr. W. R. DAVIDGE, F.S.I., Assoc. M.Inst.C.E., for the past six years Associate Member of the Council of the Royal Institute, has resigned his appointment as Housing Commissioner for the London area. He was recently presented with a silver salver and an illuminated Address as a parting gift as a token of respect and esteem from the technical staff of the London Housing Board.

Professor F. M. SIMPSON [F.] has been appointed architect for the new Department of Anatomy at University College to be erected under the Rockefeller Foundation.

Mr. C. G. BOUTCHER [F.] has resigned his appointment under the Kedah Government at Penang and is now a partner in the firm of Messrs. Stark & McNeill, of Penang. He writes that he would be pleased at all times to welcome any member of the Institute travelling in that part of the world, and would also be pleased to reply to any inquiries.

Members will regret to learn that an old and much esteemed Fellow of the Institute, Mr. E. M. Gibbs, a past President of the Sheffield Society of Architects, has been knocked down by a motor cyclist and is very seriously injured.

We are asked to announce that the Re-union Dinner of all old members of the 518th (4th London) Field Company, R.E. will be held at the Veterans' Club, Bedford Square, on the 15th January 1921. Application for tickets (price 7s. 6d. each), should be made to Major S. H. Fisher, M.C., R.E. (T.), 14, Queen Street, E.C.4.

VICTORIA AND ALBERT MUSEUM

Exhibition of Spanish Art.

A temporary exhibition of Spanish art has been arranged on the floor of the East Hall (immediately to the right of the main entrance) at the Victoria and Albert Museum, South Kensington. The museum is rich in fine examples of Spanish industrial art—many of them purchased by the late Sir Charles Robinson as far back as the 'sixties and 'seventies, and the representative collection which has now been put together includes architectural details and sculpture, pottery and glass, books and illuminated manuscripts, goldsmiths' work, jewelry and iron, the great *retablo* from Valencia, textiles, embroideries and furniture, illustrating the art of Spain both under the Moorish domination and in later times. The exhibition will remain on view while the loan exhibition of Spanish paintings is open at Burlington House.

Durham Cathedral Treasures.

An exceptional opportunity is now afforded to students and others interested in English mediaeval art to inspect in London some of the treasures of the Durham Cathedral Library, which have been lent to the Victoria and Albert Museum, South Kensington, by the Dean and Chapter.

Durham has been especially fortunate among English cathedrals in preserving a considerable portion of its monastic library, and among the MSS. now lent to the museum are some of the most interesting of these books. Nearly all the work shown is Northern English, of the earlier Anglo-Irish schools of Lindisfarne and the later school of Durham, the examples of calligraphy and illumination ranging in date from the seventh and eighth to the fourteenth century. The bindings exhibited include specimens of the admirable Durham work of the twelfth century and one of the thirteenth century. Among the MSS. are two traditionally attributed in the Middle Ages to the hand of the Venerable Bede himself, though this ascription cannot now be accepted, and several of the books given to the Monastery by the two famous Bishops, William de St. Carileph (1080-1096) and Hugh de Puiset (Pudsey, 1154-1195). Three of the four volumes of the Pudsey Bible, which ranks with the Winchester Bible as one of the most splendid in existence, are included in the exhibit.

New Acquisitions of English Furniture.

A number of interesting pieces of English furniture, acquired by purchase and gift, have recently been added to the collections of the Victoria and Albert Museum, and are exhibited in the Galleries of the Department of Woodwork. The most valuable purchase is that of an English side-table with marble top of the date 1730-1740, of walnut wood enriched with carving of the finest quality—a distinguished piece belonging to a type hitherto unrepresented in the Museum (Room 58). Another important purchase is that of an English armchair of the first half of the 18th century carved with linenfold panels and ornament of the renaissance style (Room 52). Among gifts should be specially noted a pair of richly carved chairs of the Queen Anne period, given by Sir Paul Makins, Bart. (Room 58). Of much interest to visitors, further, will be the Powell Collection of dolls and dolls' furniture (Room 57), presented by Mr. Harry J. Powell, consisting of numerous costume dolls dressed by members of the donor's family between 1754 and 1833, with an interesting collection of models of contemporary furniture and specimens of Leeds pottery.

THE EXAMINATIONS.

Increase of Fees.

Attention is drawn to the following increases in the fees for admission to the R.I.B.A. Examinations:—

Preliminary : Fee increased from £3 3s. to £4 4s.
Intermediate : Fee increased from £4 4s. to £5 5s.
Final : Fee increased from £5 5s. to £6 6s.
Special Final : Fee increased from £7 7s. to £10 10s.

ALLIED SOCIETIES.

Birmingham Architectural Association.

The first meeting of the Session of the Birmingham Architectural Association was inaugurated by a dinner, which was held at the Midland Hotel, Birmingham, on Friday, 5th November. The President, Mr. H. T. Buckland [F.A.], took the chair, and about 45 members were present. Dinner was followed by the annual presidential address, and a smoking concert.

Mr. Buckland in his address said he thought it the one occasion during the session when an opportunity was afforded him to review the work of the past, and to draw

attention to some of the matters which would be likely to engage the Council and members during the coming session. It was a source of gratification, he said, to know that the financial affairs of the Association were in a satisfactory condition, and that the present membership of 214 was greater than that of any other Allied Society, with the exception of Manchester. The School of Architecture in Birmingham now had 22 students, a far larger number than ever before, and he thought they might rest assured that, under the highly efficient directorship of Mr. Bidlake, the standard of architectural design in the Midlands would be maintained. One of the matters to which the Council's activities would be directed during this session, was the revision of their Bye Laws, which were in many respects inconsistent. Birmingham had been honoured by the Royal Institute of British Architects, in that it had elected him, as President of the Birmingham Association, to serve upon the new "Unification Committee" and also the "Contracts Committee." So far no meetings of the former had been called, but with the coming of the new session its activities would probably commence. Upon the latter committee had fallen the labour, during the past year, of revising the Institute Form of Contract. The old form was one which was endorsed and agreed to by the Master Builders, but early in this year the Institute was notified that they were no longer prepared to abide by it, and since then a document had been issued by the National Federation of Building Trades Employers of Great Britain and Ireland, which was described as the National Building Code for England and Wales, and embodied regulations for entering into and carrying out contracts for building works. The document also contained General Conditions of Contract, and Form of Contract. Mr. Buckland expressed the hope that all architects would regard it as their duty carefully to study the Institute Form of Contract and compare it with the Builders' Code.

During the past session the energy of the Birmingham Architectural Association has been largely directed to setting its house in order, after the period of disorganisation due to the war. The very great need for unification and consolidation induced the Association to issue a special appeal to all architects, within its province, who were not members, to apply for election. As a result 50 applications were received, and 40 new members and 10 associates were duly elected. Thus the ranks of the association have been materially augmented, and its sphere of influence and usefulness strengthened. It also testifies how emphatically in favour of Registration the Midland architects are.

MINUTES. II.

At the Second General Meeting (Ordinary) of the Session 1920-21, held Monday 15th November 1920, at 8 p.m. Present: Mr. Walter Cave, *Vice-President*, in the Chair, 39 Fellows (including 12 members of the Council), 33 Associates (including 2 members of the Council), 6 Licentiates, and numerous visitors: The minutes of the meeting held 1st November were taken as read, and signed as correct.

The following Associates attending for the first time since their election were formally admitted by the Chairman—Clifford W. Craske, Garnet Reginald Cottingham, and Herbert Stanley Stephens.

The Chairman announced the names of the authors of the premiated designs in the competition for the Institute War Memorial.

A Paper on THE LIBRARY AND COLLECTIONS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS was read by Mr. Rudolf Dirckx, Librarian R.I.B.A., and illustrated by lantern slides.*

* The Paper, with illustrations, will be published in the next issue of the JOURNAL.

A discussion ensued, and on the motion of Dr. A. E. Cowley, Bodley's Librarian, seconded by Sir C. Hercules Read, Keeper of British and Medieval Antiquities and Ethnography, British Museum, a vote of thanks was passed to Mr. Dirckx by acclamation, and was briefly responded to.

The proceedings closed at 10 p.m.

Election of Members, 3rd January, 1921.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 13th December, 1920:—

AS FELLOWS (59)

- CLARKE: JOHN DANIEL [A. 1903], 25 Hyde Gardens, Eastbourne; Danns, Willingdon, Sussex.
 CONSTANTINE: HARRY COULLENAY [A. 1909], 82 Mortimer Street, W.1; "Meadowside," Pinner, Middlesex.
 COUCH: WILLIAM EDWARD [A. 1903], 82 Victoria Street, Westminster, S.W.1; 97 Ditchling Road, Brighton.
 DAWSON: MATTHEW JAMES [A. 1907], 9 New Square, Lincoln's Inn; 15 St. Peter's Square, Hammersmith.
 FULTON: JAMES BLACK [A. 1906], The Glasgow School of Architecture, 167 Renfrew Street, Glasgow.
 GAGE: CHARLES HENRY [A. 1901], 22 Conduit Street, W.1; 2 Cherry Orchard, Staines.
 HIGGINS: FREDERICK ROBERT [A. 1899], New County Hall; 188a Adelaide Road, St. John's Wood, N.W.3.
 HOLDEN: CHARLES HENRY [A. 1900], 28 Woburn Place, W.C.1; Harmer Green, Welwyn, Herts.
 KENNARD: JOHN HAROLD [A. 1910], 12 Gray's Inn Square, W.C.1; Roseman, Chesham Bois, Bucks.
 KEYS: PERCY HUBERT [A. 1907], Architect, New Government Buildings, Singapore.
 LONG: CHARLES WILLIAM [A. 1911], 24 Bloomsbury Square W.C.1; 4 Trumpington Street, Cambridge.
 MANSFIELD: LESLIE [A. 1911], 33 St. James's Square, W.1; 75 Earl's Court Road, W.8.
 PIERCE: ROBERT, A.R.C.A. [A. 1909], Bank Chambers, Bangor St. and Brion-y-Mach, North Rd., Carnarvon.
 STEWARDSON: ROBERT ERNST [A. 1904], 22 Yuen Ming Yuen Road, Shanghai.
 TRAQUAIR: RAMSEY [A. 1900], Professor of Architecture, McGill University, Montreal.
 WARREN: PERCY FRANCIS [A. 1908], 74 Hendford, Yeovil, Rydalmount, Yeovil.
 WILLS: JOHN BERTRAM [A. 1909], 15 Orchard Street, Bristol; 15 Berkeley Square, Clifton, Bristol.

And the following Licentiates who have passed the qualifying examination:

- ALEXANDER: SAMUEL GRANT, M.B.E., J.P., 17 Queen's Gate, Inverness; Willow Bank, Inverness.
 ARTHUR: JOHN MAURICE, C.M.G., D.S.O., 4 Graham Street, Airdrie; Glentworth, Airdrie.
 BENTLEY: ARTHUR FRED COLLINS, Dial House, Squirrels Heath, Essex.
 BLAKEY: RICHARD PAUL, Provincial Architect, Edmonton, Alberta, Canada.
 BOSWELL: GEORGE ARTHUR, 256 West George Street, Glasgow; White House, Milnken, Renfrewshire.
 BROADBENT: FRED, Education Office, Leeds; Aberdeen House, Armley, Leeds.
 BROWN: WILLIAM, 4 Clyde Street, Motherwell; Skelly-ton, Larkhall, Lanarkshire.
 BUNCH: ARTHUR CHARLES, The Castle, Winchester; 48 Hatherley Road, Winchester.
 CRAIGIE: JAMES HOLY, 212 St. Vincent Street, Glasgow; 42 Riverside Road, Newlands, Glasgow.
 DAVIDGE-PITTS: HENRY, D.R.C. Chambers, Mossel Bay, S. Africa.

- DAY, CLIFTON ROBERT, The Outer Temple, 222 Strand, W.C.2; Wellhouse, Ruislip, Middlesex.
- DENN: JOHN GLEN, 122 Main Street, Cambuslang, Scotland.
- DUSSAULT: LEONARD LOUIS, 39 Newhall Street, Birmingham.
- ERKINS: LEONARD GRAY, 99 Leman Street, E.1; Dalkeith, Station Road, Harrow-on-the-Hill.
- FERMAUD: EDMUND AUGUSTE, 8 Buckingham Palace Road, S.W.1.
- FLOYD: FRANCIS HAYWARD, The Market Place, Newbury, Berks; Fulsham Rectory, Newbury, Berks.
- FOPSTER: JOSEPH, County Architect, Cumberland; Kirk Andrews House, Kirk Andrews-on-Eden, Carlisle.
- GARDNER: HARRY RICHARD, Reigate Road, Leatherhead, Surrey.
- GOODRHAM: HENRY ROBERT, 6 King's Bench Walk, Temple.; 96 Osbaldeston Road, Stoke Newington.
- GRAHAM: PATRICK HAMILTON, 21 Bolton Street, Wellington, New Zealand.
- GURNEY: ARTHUR EDWARD, 65 Alexandria Park Road, N.10.
- HARBROX: GEORGE DUDLEY, 34 George Street, Hull.
- HASLOCK: WILLIAM EDWIN, 143 Albert Road, Middlesbrough-on-Tees.
- HOLMAN: GEORGE EDWARD, Lieut.-Col., 6 King's Bench Walk, Temple, E.C.4; Woodside, Buckhurst Hill.
- HYAMS: HENRY, 6 Waterloo Road, S.E.1.
- JACKSON: THOMAS GORDON, 13 South Square, Gray's Inn, W.C.1; 33 Bath Road, Chiswick, W.4.
- JUPP: SYDNEY, 25 Sackville Street, Piccadilly, W.; Upper Woodcote, Parley, Surrey.
- MORGAN: CECIL HERBERT, Struan Lodge, Darjeeling, Bengal, India.
- NEIL: HAMILTON, 157 St Vincent Street, Glasgow; Gateside, Renfrew Road, Paisley.
- PALMER: FREDERICK CHARLES RICHARD, 15 Bishopsgate, E.C.2; 3 Castello Avenue, Putney, S.W.15.
- PEACOCK: THOMAS REID, 81 St. Peter Street, Quebec, Canada.
- PLTTER: JOHN, 74 Hendford, Yeovil; The Grange, Yeovil.
- REYNOLDS: EDWIN FRANCIS, King's Court, 117 Colmore Row, Birmingham.
- SAUNDERS: JOHN THOMAS, 1A Linden Gardens, Bayswater, W.2.
- SHEPPARD: JOHN MORIMER, P.A.S.I., 39 Bloomsbury Sq., W.C.1; 156 Adelaide Rd., South Hampstead.
- SIDWELL: HENRY THOMAS, Rochford Rural District Council, Rayleigh, and Gondola Villa, Rayleigh.
- SIMISTER: ERNEST, 29 Queen Street, Oldham; 194 Cop-pice Street, Oldham.
- SINGLAIR: COLIN, M.A., F.S.A. [Scot.], 245 St. Vincent Street, and 35 Clifford Street, Bellahouston, Glasgow.
- SPISK: HERBERT, 52 High Street, Windsor; "Broad-water," Wraybury, Bucks.
- WALKER: WILLIAM, 81 North Street, St. Andrews.
- WHITBURN: HENRY ALFRED, 22 Surrey Street, W.C.; 12 Broadway, Woking; Elm Croft, Woking, Surrey.
- WINDSOR: FRANK, 40 Coubie Road, Croydon.
- CATON: WILLIAM COOPER [Special War Examination], 6 Waterloo Street, Hove, Sussex.
- CHERRY: STANLEY VICKERSTAFF [Special War Examination], 65 The Wells Road, Nottingham.
- CLIFTON: EDWARD NOEL [Special War Examination], 7 East India Avenue, Leadenhall Street, E.C.
- CONNAL: HAROLD JOHN [Special War Examination], 55 Wilfred Street, Derby.
- CRAIG: WILLIAM HUGHSTON [Special War Examination], Detmold Chambers, 237 Collins Street, Melbourne, Australia.
- DALE: FREDERIC CHARLES COWDEROI [Special Final Examination], 34 Bedford Square, W.C.1.
- DAVIDSON: GERALD, B.A. [S. 1919, Special War Exemption], The Beach House, Hoylake, Cheshire.
- DEMPSTER: JOHN AUSTIN [Special War Examination], c/o Hucklebridge, 37 Pandora Road, West Hampstead, N.W.6.
- DOLL: MORDAUNT HENRY CASPERS, M.A. (Cantab.) [Special War Examination], 5 Southampton Street, Bloomsbury, W.C.1.
- ELSWORTH: WILLIAM [Special War Examination], 68 Romer Road, Fairfield, Liverpool.
- EMBERTON: JOSEPH [Special War Examination], c/o Sir John J. Burnet, R.S.A., 1 Montague Place, W.C.1.
- EVANS: ERIC EWART [Special War Examination], 30 Park Road South, Cloughton, Cheshire.
- FEIRN: JOHN LAURENCE [Special War Examination], Windermere, Westmoreland.
- FORGIE: ALEXANDER GARDEN [Special War Examination], 33 Summerside Place, Leith.
- FOWLER: CYRIL WILLIAM [Special War Examination], 14 The Vale, Golders Green, N.W.2.
- FRANCIS: BERNARD THOMAS [Final Examination], 32 Willn Street, Upper Dale Road, Derby.
- FRITCHLEY: GEORGE BOWEN [Special War Examination], 52 Alexandra Road, Croydon.
- GODFREY: FREDERICK WILLIAM [Special War Examination], 695 Fulham Road, S.W.6.
- GOLDING: WILLIAM ARTHUR [Special War Examination], St. Albans Grove, Musgrave Road, Durban, Natal.
- GREGORY: WILLIAM JOHN HENRY [Special War Examination], 14 Russell Road, Sefton Park, Liverpool.
- HALFIDE: FREDERIC WILLIAM [Special War Examination], 48 Thrale Road, Streatham, S.W.16.
- HALL: GEORGE LANGLEY DESMOND [Special War Examination], 1 Victoria Street, Westminster, S.W.1.
- HAMLIN: WILLIAM HENRY [Special War Examination], 62 Roxborough Road, Harrow, Middlesex.
- HARRIS: FRANK CHAMBERS [Special War Exam.], c/o New Zealand High Commissioner, 415 Strand, W.C.
- HARRIS: LESLIE YOUNGMAN [S. 1911, Special War Exemption], Clinton Terrace, The Park, Nottingham.
- HILL: GEOFFREY WALKER [S. 1912, Special War Exemption], Daw Cross, Pannal, near Harrogate.
- HOWARD: CHARLES VINCENT [Special War Examination], c/o Bank of New South Wales, 29 Threadneedle Street, E.C.
- JONES: ROBERT DAVID [Special War Examination], Min-y-don, Borth-y-gest, Portmadoc, N. Wales.
- LANGRISH-TOYE: FREDERICK CHARLES [S. 1912, Special War Exemption], 17 Woodside Road, Wood Green, N.22.
- LAWRIE: WILLIAM GRINDLAY [Special War Examination], "Toronto," Martin Street, Crow's Nest, North Sydney, N.S.W.
- LAWS: HORACE HERBERT [Special War Examination], 31 The Avenue, West Ealing, W.13.
- LAWSON: PHILIP HUGH [Special War Examination], 6 Shavington Avenue, Chester.
- LEWIS: HORACE MERSHAM [Special War Examination], The Pollards, Wokingham.
- LEWIS: WILLIAM JOHN [S. 1911, Special War Exemption], 12 Toronto Road, Ilford, Essex.

AS ASSOCIATES (72)

- ADAMS: WALTER ALWYN COLE [S. 1912, Special War Exemption], 23 Throgmorton Street, E.C.
- BARNETT: PERCY WILLIAM [Special War Examination], 64 Eflingham Road, Hornsey, N.8.
- BETTS: ALBERT WILLIAM [Special War Examination], 333 Nottingham Road, Old Basford, Nottingham.
- BLADON: CHARLES ARTHUR [Special War Examination], 17 Oxford Road, Liscard, Cheshire.
- BRAMWELL: JAMES STONEMAN [Special War Examination], Royal Insurance Buildings, 9 North John Street, Liverpool.
- BRYETT: AUGUSTUS [Special War Examination], 43 Galveston Road, East Putney, S.W.15.

- LOVEDAY: WILLIAM TAYLOR [Special War Examination], 28 Albert Street, Rugby.
- LOW: SIMPSON [Special War Examination], Woodlea, Dyce, Aberdeenshire.
- MCCALLUM: MALCOLM SINCLAIR [S. 1913, Special War Exemption], The Lodge, Cullen, Banffshire.
- MACFARLANE: GEORGE GORDON, B.Sc., M.C. [Special War Examination], 5 John Street, Bedford Row, W.C.1.
- MACKINTOSH: WILLIAM [Special War Examination], 20 Willoughby Road, Hampstead, N.W.3.
- MARR: EDMUND TOWNLEY [Special War Examination], c/o Sir John J. Burnet, 1 Montague Place, W.C.1.
- MARTINDALE: CHRISTOPHER JAMES TAWCETT [Special War Exam.], City Engineer's Office, 36 Fisher St. Carlisle.
- MITCHELL: ANDREW M. M. [S. 1912, Special War Exemption], 4 Sherrard Road, Forest Gate, E.7.
- MOERDIJK: GERARD LEENDERT PIETER [Final Examination], Box 6,614, Johannesburg, S. Africa.
- NEWBICK: FREDERICK HUBERT [Special War Examination], 15 Grange Terrace, Sunderland.
- NORBURN: GEORGE BERTRAM EDWARD [Special War Examination], Maltman's Hill House, Smarden, Kent.
- PATON: ARCHIBALD GILCHRIST [S. 1920, Special War Exemption], 44 Apsley Street, Partick, W. Glasgow.
- PEARCE: OSWALD DUNCAN [Special War Examination], 8 Highbury Hill, N.5.
- PETERS: THOMAS JAMES [Special War Examination], 14 Hartington Street, Newcastle-on-Tyne.
- PITE: ROBERT WILLIAM [Special War Examination], 13 Elm Grove Road, Ealing, W.5.
- REID: HERBERT HENRY [Special War Examination], "Auchengyle," 16 Burnett Place, Aberdeen.
- ROSS: WILLIAM ALEXANDER [Special War Examination], 15 Felix Avenue, Crouch End, N.8.
- ROUSE: EDWARD HENRY [Special Final Examination], Hankow, China.
- RUDMAN: WALTER, M.C. [Special War Examination], 53 St. Mary's Street, Chippenham, Wilts.
- SHATTOCK: LAWRENCE HENRY [Final Examination], 4 Crescent Road, Wimbledon, S.W.19.
- SPENCE: WM. NEEDHAM [S. 1914, Special War Exemption], "Lithgow," Oakley Rd., Ranelagh, Co. Dublin.
- STEPHENS: PHILOMORUS EDWIN [Special War Examination], 46 Chapel Street, Penzance.
- STEVENS: FREDERICK JOHN [S. 1912, Special War Exemption], School House, Wellclose Square, E.1.
- SUNTER: MICHAEL CALVERT [Final Examination], 15 Holland Road, Chorlton-cum-Hardy, Manchester.
- SYNNOT: RAYMOND, M.C. [Special War Examination], Australasian Pioneers' Club, Sydney, Australia.
- THOMAS: EDWARD JOHN [S. 1910, Special War Exemption], Brynhenlog, Hengoed, near Cardiff.
- VERGETTE: ROBERT GEORGE [Special War Examination], 7 Walter Road, Swansea.
- WATSON: HAROLD [Special War Examination], Newall Carr, Otley, Yorks.
- WELSH: STEPHEN [Special War Examination], 54 Yeaman Street, Forfar, Scotland.
- WHARF: HENRY FRANCIS [Special War Examination], 106 Coltman Street, Hull.
- WILSON: PERCY [Special War Examination], "Spaulands," Argyle Road, Southport, Lancs.
- WINDER: RICHARD HENRY, M.A. [S. 1920, Special War Exemption], 254 Waterloo Street, Oldham.

AS HONORARY FELLOW.

CRAWFORD AND BALCARRES, THE RIGHT HON. THE EARL OF, F.S.A., 7 Audley Square, W.

AS HONORARY ASSOCIATE

CRESWELL: KUPPEL ARCHIBALD CAMERON, M.R.A.S., Inspector of Ancient Monuments, Palestine, c/o Military Governor, Jerusalem; and 12 Regent's Park Road, London, N.W.

NOTICES.

THE THIRD GENERAL MEETING (BUSINESS) of the Session 1920-21 will be held MONDAY, 29th NOVEMBER, 1920 at 8 p.m. for the following purposes:—

To read the Minutes of the General Meeting (Ordinary) held 15th November, 1920; formally to admit members attending for the first time since their election.

To proceed with the election of the candidates for membership whose names were published in the JOURNAL for 25th September (pp. 483-84) and 6th November (pp. 23-24).

Special Notices for the Business Meeting, 29th November.

The CHAIRMAN, on behalf of the Council, to move, in accordance with the recommendations of the Competitions Committee, that the following provisions be embodied as essential conditions in the Regulations of the Royal Institute of British Architects for Architectural Competitions:—viz:—

D) The premiums shall be based on the estimated cost of the work, and the total amount of such premiums shall not be less than—

1 per cent. for the first £50,000;

$\frac{1}{2}$ per cent. for the next £100,000;

$\frac{1}{2}$ per cent. for the remainder.

In the case of works costing less than £10,000 a higher rate shall be adopted.

In no case shall the first premium exceed half the total amount of the premiums offered.

H) All Conditions by Corporate Bodies shall be under seal.

[NOTE.—Should the proposed conditions be approved the present Regulations (*D*), (*E*) and (*F*) will become respectively (*E*), (*F*) and (*G*).]

The CHAIRMAN on behalf of the Council, to move that the Revised Scales of Fees payable to Architects and Quantity Surveyors in connection with State-aided Housing Schemes, as set out in the Ministry of Health's General Housing Memorandum No. 31, be incorporated in the "Scale of Professional Charges" in substitution for the existing Clause 9.

Mr. SYDNEY PERKS, F.S.A. (*F*), to put the following question to the Chairman:—Are the Ministry of Health bound by their Memorandum No. 31, and will they refuse to sanction the remuneration of Architects and Quantity Surveyors at a lower rate than that scale?

ASSOCIATE (32) at present in London's designs of position as Assistant in London or Southern County office. Six years' London experience, four years' experience in state factory and domestic work in East Canadian office. c/o Box 276, The Secretary, R.I.B.A.

Partnership required by Office Royal Engineers about to be demobilised. London or provinces. Prior to war had practice in Liverpool and Isle of Man. Address Box 110, Secretary, R.I.B.A., 9, Conduit Street.

Architect Member R.I.B.A. 10 years' experience and qualification is desirous of resuming practice and seeks partnership in an office with good prospects, or would consider position with a view to an early partnership. Address Box 150, Secretary, R.I.B.A., 9, Conduit Street, W.

Architect (39) A.R.I.B.A. in practice in London three years previous to the War and since demobilization in January 1919 is desirous of obtaining a partnership with a Member of the Institute (London or Provinces). Served articles with late member and President R.I.B.A. and as assistant in another office previous to commencing practice in London. Address Box 1811, c/o Secretary, R.I.B.A., 9, Conduit Street.



THE READING ROOM, R I B A. LIBRARY.

THE LIBRARY AND COLLECTIONS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

By the LIBRARIAN, RUDOLF DIRCKS.

Read before the Royal Institute of British Architects, Monday, 15th November 1920.

WITHIN the time limit of a single Paper I fear that it will not be possible to give more than a bird's-eye view of the Institute Collection of books and drawings. But I shall cover as much ground as I can in the time at my disposal.

When the President did me the honour to ask me to read a Paper on the contents of the Library he suggested that I should keep in view the requirements of students. The President's suggestion determined my method of treatment, which has been to glance at the possessions of the Institute in the light of architectural bibliography, and to indicate in each period what we have of value in the Library: to depict a sort of genealogical tree, beginning with Vitruvius and following with the hereditary branches.

When the Institute was founded in 1834 the formation of a library was one of the main instruments with which it was hoped to cultivate a more general knowledge of architecture, at a time when libraries were rarer institutions than they are to-day. The idea of the founders, however, extended beyond a collection of books and drawings: it embraced also a collection of a more general character, consisting of models of buildings, building stones and indeed practically any object, not too cumbrous, of architectural interest. But with the lapse of the time, the tendency was to restrict the collection to books, drawings and engravings; and the exigencies of space induced the Council from time to time to part with many of the objects which occupied space that could be better used for the accommodation of books and drawings.

Members of the Institute have every reason to be proud of their Library, not only because it is the finest collection of books and drawings possessed by any architectural society, but also on

account of the personal associations, both past and present, with the formation of the collection. It may seem a little paradoxical to be thankful that the Institute was not in the beginning a rich corporation with plenty of funds at its disposal for the purchase of books : but this very fact has given a priceless quality to the collection ; it has given to the main and most valuable part the interest of personal association which could not be bought. One of the earliest documents in the possession of the Institute is a letter from Charles Barry (later Sir Charles Barry, and the architect of the Houses of Parliament) dated from Foley Place, 15th June 1835, addressed to " Dear Donaldson " afterwards Eminent Professor of Architecture at University College :—

" With the best wishes for the success of the Institute in all its objects, it has long been my intention to assist in encouraging that of collecting standard works, which I consider to be of paramount importance, and as the first public meeting is convened by the Institute for this evening it may be of use, by way of example, that the list of Donors should be as numerous as possible. I enclose a Draft for £20, which I will thank you to place to the Library fund in my name.

" Yours very truly,

" CHARLES BARRY."

There is another letter from Sir Charles Barry, dated three years later 4th May 1838, with which he forwarded, on behalf of Sir James Drummond Stewart, the remarkable collection of original drawings by Bibiena, Panini and other distinguished Italian and French artists. I mention particularly Sir Charles Barry's letter as it is the earliest of typical correspondence indicating the interest of distinguished members of the Institute in forming the collection of books and drawings. In making this brief reference to the history of the Institute Library, I should like to recall to the memory of present members the names of Professor Donaldson, Professor Hayter Lewis, Wyatt Papworth and Professor George Aitchison, who were all enthusiastic in increasing the bibliographical value of the collection. Donations were constantly being made to the Library funds : Sir William Tite, for instance, in 1870 gave £500 ; but the most valuable gifts were of books received from their distinguished authors or collectors, men whose names occupy a prominent place in the architectural history of the last hundred years, both in England and abroad. In the first published lists of books printed in 1836 the names which appear first in the list are those of Percier and Fontaine, who presented a complete series of their published works. The Library was indebted to the King of Prussia for the presentation of Lepsius's monumental work on Egypt, and to the Prince Consort for various pamphlets. Amongst the distinguished authors who sent copies of their works were the Duke of Serradifalco (*Sicilian Antiquities*), Canina, Schliemann, Texier, Viollet-le-Duc (who presented his *Dictionnary*), Charles Garnier (who presented a collection of working drawings for the Paris Opera, as well as six folio volumes of photographs of the sculpture and details of the same building), and many others. The most valuable contents of the libraries of James Fergusson, the historian, Professor Donaldson, and Arthur Cates were bequeathed to the Institute Library in which they had so often worked.

Before proceeding to the general contents of the Library I should like to refer to two publications with which the Institute and its members have been closely associated. The first—published in the early days under the title of *The Institute Transactions* and since 1893 under the title of *The Institute Journal*—contains the Sessional Papers read before the Institute, now comprising 68 volumes, and forms a valuable contribution to the architectural and archaeological literature of the last eighty or ninety years. Among the contributors we find the name of practically every architectural author of distinction within the period in question : James Fergusson, Professor Cockerell, Wm. Burges, Professor Willis (his Paper on the " Construction of the Vaults of the Middle Ages " has been reprinted by the Institute, and is known to all students of Gothic architecture), J. K. Colling, G. Edmund Street, Owen Jones, A. H. Layard, Thomas Hayter Lewis, J. H. Parker, Pennington, Francis Crammer Penrose, R. P. Pullan, H. Schliemann, Sir Gilbert Scott, Wm. Simpson (" Crimean Simpson," who

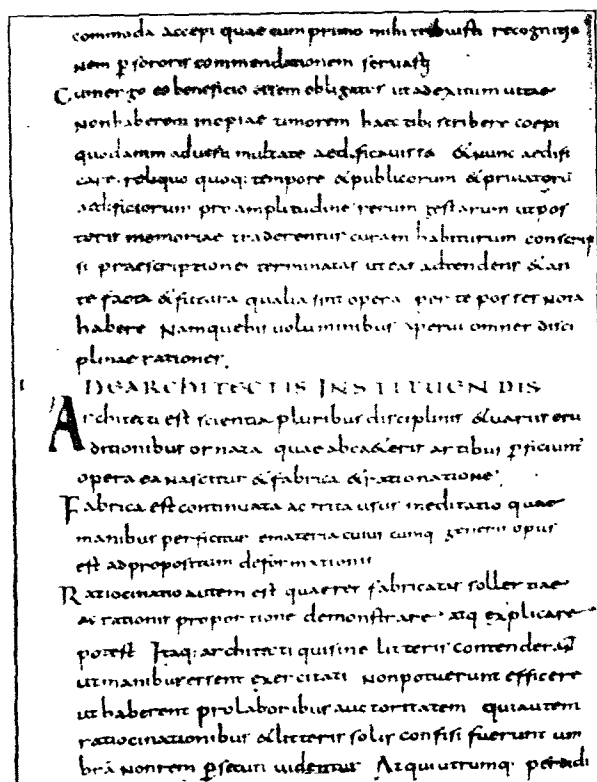
in later years presented two folio volumes of his Indian Sketches), Mr. E. C. Walcott ("Church and Conventual Arrangement"), Alfred Waterhouse, G. F. Bodley, and many others of the past as well as the many distinguished writers who are still with us. The other publication to which I referred are the eleven volumes (eight of text and three of illustrations) of the *Dictionary of Architecture*, published by the Architectural Publication Society, one of the most useful books of reference to the student of architecture that has ever been published. The Architectural Publication Society was founded in 1848 at the instigation of Wyatt Papworth "for the Promotion of Architectural Information intended for the Revival and Restoration, Investigation and Publication of Knowledge in Architecture, and the Arts connected therewith." Sir Charles Barry, Professor Cockerell, Sydney Smirke, Edward F. Anson and Robert Kerr were members of the original committee. The *Dictionary* in its present form was evolved from a scheme for the publication of promiscuous essays on subjects of architectural interest. The information in the *Dictionary* was compiled by ninety-one contributors, whose names are all more or less familiar as members of the Institute: but the main labour of research and compilation was undoubtedly undertaken by Wyatt Papworth, the Honorary Secretary, who for forty-three years (the work was completed in 1892) must have given his time almost unreservedly to the task. The *Dictionary* contains 18,456 articles, 2,288 folio pages, 152 plates, and its total cost amounted to £9,550.

The contents of the Library cover pretty well the chronology of architectural literature from the time of the publication of Vitruvius (in 1486) to the present day, contained in some 19,000 volumes, over three thousand pamphlets, a few original manuscripts and many thousands of architectural drawings, engravings and photographs. As Mr. C. Harrison Townsend, in a Paper which he read before the Institute as recently as 1912, has dealt with the collection of drawings, I shall only refer to those which have appeared in published form or have some special relation to the period with which I am dealing.

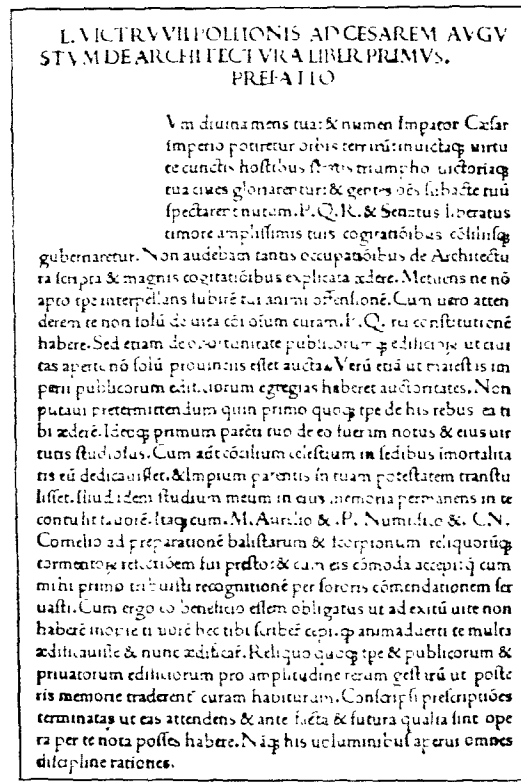
In taking a general survey of architectural literature, we find that the earliest and most important books were published in Italy, that France some years later caught the impetus of the Italian Renaissance, and that England, although it had an idiosyncratic literature, provided, for the most part, until the eighteenth century only a faint echo of the publications of Italy and France. It was not indeed until the appearance of the publications of the Society of Dilettanti that it assumed more than an insular importance, a position which it has since maintained. The most important authors on architecture, in the early days and since, were the most important architects. Architectural biography, I think, provides scarcely an instance in which the chief Italian architects of the Renaissance did not write on architecture or seek some form of literary expression, although their works may not have always been printed or may have been lost. Brunelleschi (said to be the earliest authority on the science of perspective) and Bramante are cases in point. There are bibliographical gaps in the Institute Library as in all libraries, some serious, which it is hoped may be filled in time: but, taking the Library as a whole, its contents usually correspond adequately to the bibliographical lists published in the various histories of architecture.

The ten books of Vitruvius gave the first impetus to modern architectural literature, even before their appearance in printed form. He, as a writer, suggested an attitude and outlook towards the art of architecture that influenced all the early writers, Italian, French and English. The Library possesses one of the most complete collections in existence of the various editions of Vitruvius. The first edition was published in Rome in 1486, about forty years after the invention of printing in movable type, and the rapidity with which it was followed by later editions indicates not only the popularity of the author but the universal interest that was taken in architecture. Ten years later the work was reprinted in Florence, followed by editions in 1513 and 1522. In 1511 the Giocondo edition, the first to contain illustrations, was published in Venice and further editions were published at Strasbourg, Lyons and in Paris before the middle of the sixteenth century. These editions were

in Latin. The first Italian translation by Cesare Cesariano was published at Como in 1521, and again at Venice in 1524 and 1535, and again at Perugia in 1536. The first German translation appeared at Nuremberg in 1548, the first Spanish edition was published at Alcalá in 1582, the first French translation by Jean Martin in Paris in 1547, and the first English translation, by William Newton, in London in 1771 and 1791, in two parts. An earlier abridged translation by Joseph Moxon, from the famous French edition of Perrault, was published in 1692 and ran through various editions, but was very inadequate. Numerous later English translations have appeared since Newton's time, the most familiar to students being Gwilt's, published in 1826. The Institute collection contains copies of all the first editions that I have mentioned, with many of them in their original bindings. There have been many charges of forgeries in literature, some of which have been justified. Alberti



A PAGE (REDUCED) FROM NINTH CENTURY MANUSCRIPT OF VITRUVIUS. (British Museum—Harleian MS. (No. 2767))

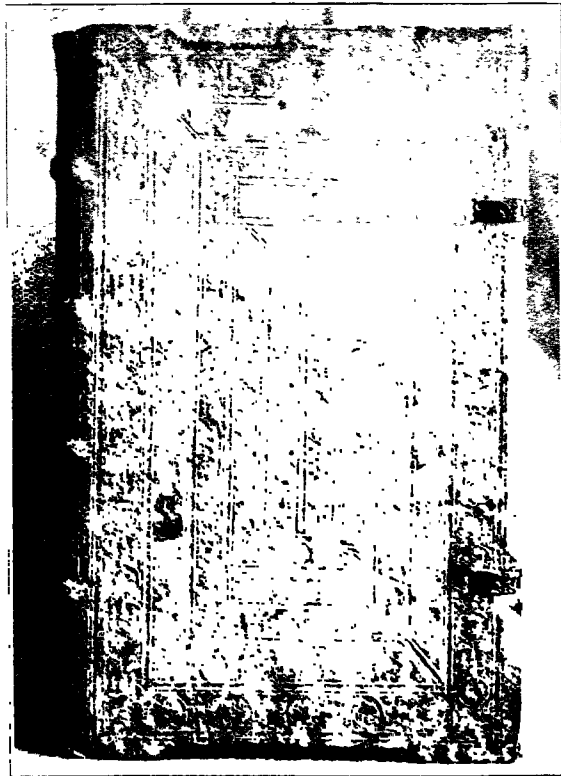


REDUCED FACSIMILE OF THE FIRST PAGE OF THE "EDITIO PRINCIPIS" (1486) OF VITRUVIUS, with the initial letter omitted.

himself provided an amusing example as a young man in a fable entitled "Philodoxos," which he attributed to Lepidus, a comic Latin poet, and the *Libri decem* have not escaped the charge, although it has never, I think, been made by architects. The discussion first began in 1829, in a correspondence between a German philologist, named Schultz, and Goethe. The Institute published in 1896 a translation of a treatise, without undertaking any responsibility for the opinions of its author, Professor Ussing, of Copenhagen, who assumes *De architectura libri decem* to have been the work of an unscrupulous impostor and literary hack of the tenth century. In 1902, however, M. Victor Mortet contributed to the *Revue Archéologique* a Paper entitled "Recherches critiques sur Vitruve et son Œuvre," in which he takes the other side. Professor Atchison once stated that Vitruvius was the handbook of the Middle Ages. In the British Museum there are six manuscript copies of Vitruvius, belonging to the ninth century and later, and there are two others in England, one in the Bodleian

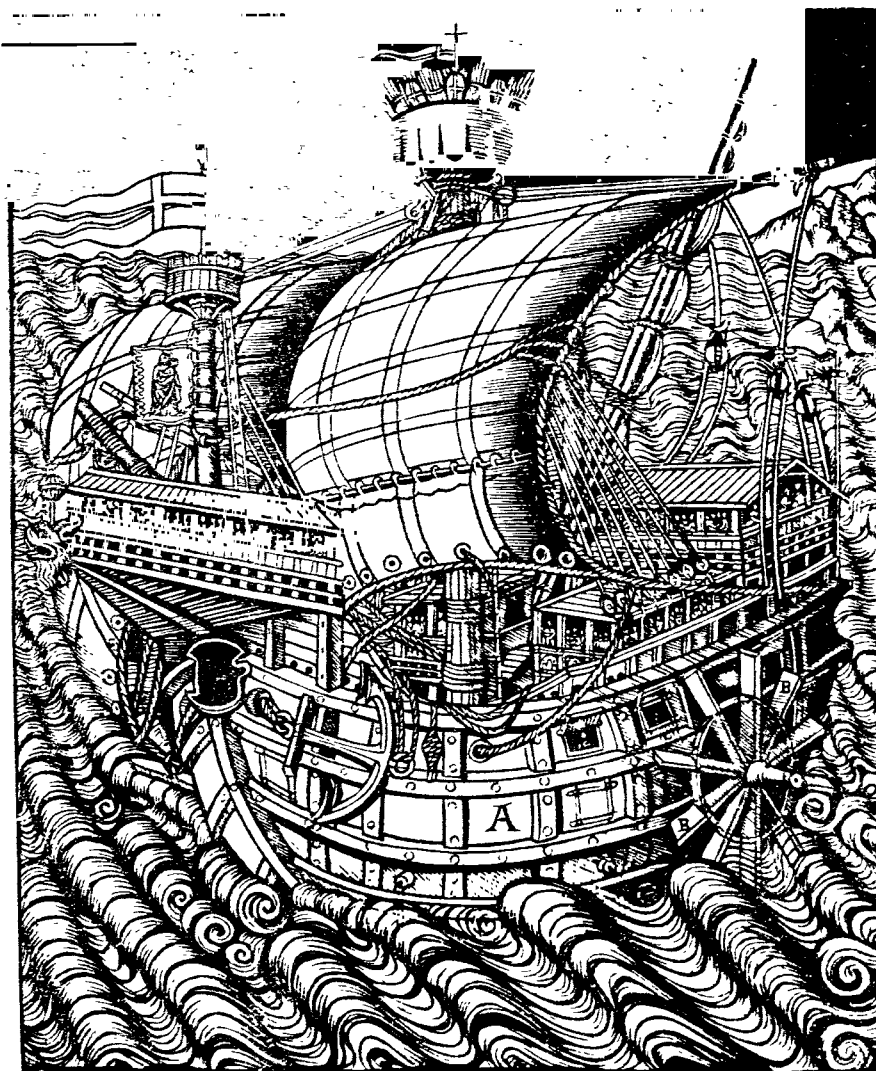
and the other in the Library of St. John's College at Oxford. Although it is a little apart from my paper I cannot refrain from reproducing on the screen pages from the ninth and fifteenth century manuscripts. In each case I have selected pages which have worn well, although both copies are in an excellent state of preservation. The first is from the ninth century manuscript: the second, which I have chosen for the quality of the writing, is from the fifteenth century manuscript. I also give illustrations on the screen of a page from the *Editio princeps* of Sulpitius (1486) and of the binding of the first German edition, printed at Nuremberg in 1548, in untouched vellum on woodboards, with original thong and brass clasps and laced thong head bands.

Vitruvius in the first of his ten books draws up the qualifications essential to a good architect, which must seem ideally unattainable to any modern architectural student. If, indeed, the universal qualities which Vitruvius demands have been possessed by any man they were possessed by Leone Battista Alberti, one of the choicest spirits produced by the humanist movement in Italy, and one of the earliest architects of the Italian Renaissance. Alberti's ordered life was a romance of learning and artistic creation. He wrote as a specialist in many subjects, but only two of his smaller works were published during his lifetime. His most important work, and the most interesting to architects, is his *Opus prestantissimum de Re Aedificatoria*, in ten books, published in Florence a year earlier (1485) than Vitruvius's work was published in Rome. The copy of this edition in the Institute Library is supposed to have formed part of the library of Lord Burlington, and was later in the library of the Duke of Devonshire. A Latin edition was published in Paris in 1512 (the Institute copy was presented by M. Charles Texier), and a French translation by Jean Martin was also published in Paris in 1553, under the title *L'art de bien bastir*. A modern author suggested a few years ago that if this translation had not been published the architectonic revolution in France might not have occurred—a somewhat high-flown suggestion. Italian translations were published in Florence in 1550 and 1565, by C. Bartoli—I reproduce on the screen an engraving of Alberti from this edition (see page 55)—and it was from this translation that Leoni provided the English version, published in 1726, in three volumes, with Italian and English text in parallel columns. The Library possesses copies of these editions as well as others that were published in Venice and Bologna. According to a French student of Alberti's work, M. Poppelin, it is doubtful whether Alberti intended publishing explanatory plates in his book on architecture, a gap that was filled by Bartoli in his Italian translation. Alberti's literary activity extended beyond science and art to philosophy and the arts of poetry and sentiment. An interesting example of his lighter mood in literature is to be discovered in *Hecatompila*, a duodecimo published in 1534, in italicised type, with no place or printer's name (but probably from the Venetian press), in which Alberti discourses as an expert on the art of love. A reproduction (reduced) of the title-page is given on page 55. This little book is written in the form of a prologue to a play and ends as the play is supposed to begin.



ORIGINAL BINDING OF FIRST GERMAN EDITION OF VITRUVIUS
(Nuremberg, 1548).—R. L. B. A. Collection.

Alberti was the first of a line of distinguished Italian architects who wrote upon architecture, the most celebrated being Sebastiano Serlio, Barozzi da Vignola, Vincenzo Scamozzi and Andrea Palladio, whose works, both in architecture and literature, had a dominating influence on European architecture and upon architectural theory. The works of these Italian authors as well as many others of lesser prominence are adequately represented in the Institute Library. Serlio, who was born



FROM A WOODCUT IN THE CESARIO VITRUVII (COMO, 1521)
Showing a device for measuring distances travelled by sea — R.I.B.A. Collection

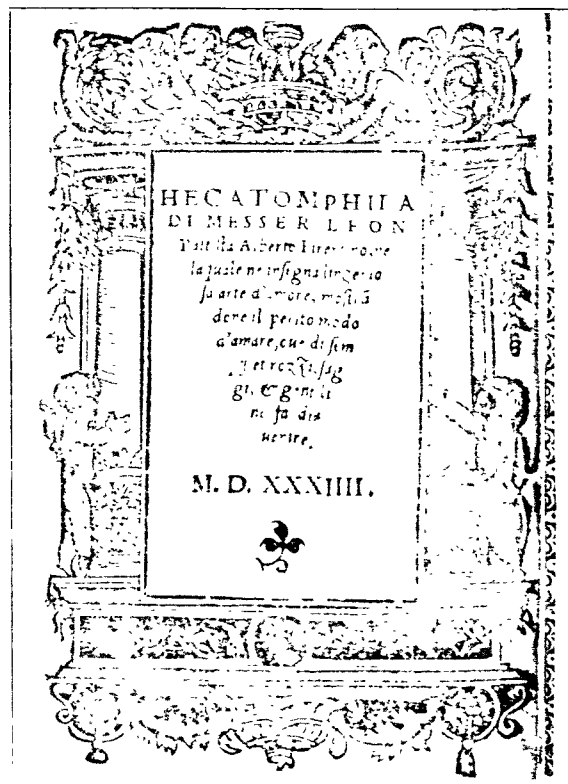
at Bologna in 1475 just before the death of Alberti, has an especial interest for English students, as a translation out of Italian into Dutch and out of Dutch into English (in the latter respect like Miles Coverdale's Bible), by Robert Peake, was published in London in 1611 and was the earliest connected work on architecture which appeared in the English language. Peake's translation was dedicated to "the High and Mighty Prince Henry, Prince of Wales," and is, I believe, the only English translation of Serlio. The Institute Library possesses one complete copy of this work and a second copy with the first book omitted. So far as the Italian editions are concerned, the Library is indebted to

Mr. Max Clarke for the very rare volume on the Five Orders, *Regole Generali di Architettura sopra le cinque maniere degli edifici*, published in Venice by Francesco Marcolini Da Forlì, in 1537, which, so far as is known, was the first book published by Serlio. The Library also possesses Venetian editions of his completed work of 1551, 1566, 1584 (7 books), 1619 (the 7 books), 1663 (5 books). The last edition contains a copy of Serlio's portrait which I give on the screen. On the ground of association, the Institute Library is probably happiest in the possession of the quarto edition of 1619, which contains a note in the handwriting of Sir James Thornhill (the painter associated with the decoration of St. Paul's Cathedral and Greenwich Hospital) as follows: "This was Inigo Jones's Book, afterwards Mr. Webb's [name rather blotted], then Mr. Churchill's, then Sir J. Thornhill's." The Mr. Webb was no doubt John Webb, Inigo Jones's relative or son-in-law: there was a Mr. Churchill, I believe, associated with Wren at Greenwich Hospital. In other handwriting there is the signature of Rd. Williamson, and again, underneath, "This book is the property of P. Nicholson 1813," who was no doubt the compiler of the *Dictionary of Architecture* and the prolific author of other works connected with building at the end of the eighteenth and beginning of the nineteenth century. The second and last time that Jones visited Italy was between the years 1613-1614, so that, as this copy of Serlio was not printed until 1619, it must have come into his hands after his return. The book contains numerous marginal notes (unfortunately too closely shaved by some careless binder), but I am unable to identify the careful handwriting with Inigo Jones's more impulsive penmanship: it possesses more, perhaps, the character of John Webb's.

Serlio was well known in France, where he died, both as an architect and author: but it was an Italian architect, Barozzi da Vignola, born some thirty years later, whose book, *Regola delli cinque ordini d'Architettura*, became the standard text book of French students and architects. His other book was *Le due Regole della prospettiva pratica*. His works are represented in the Library by various Italian editions which contain the additional plates of doorways by Michelangelo. Bound with the Roman edition of 1617 with the engravings by Francesco Villamena is the *Libro d'Antonio Labacco appartenente a l'architettura nel qual si figurano alcune notabili Antiquità di Roma*, containing

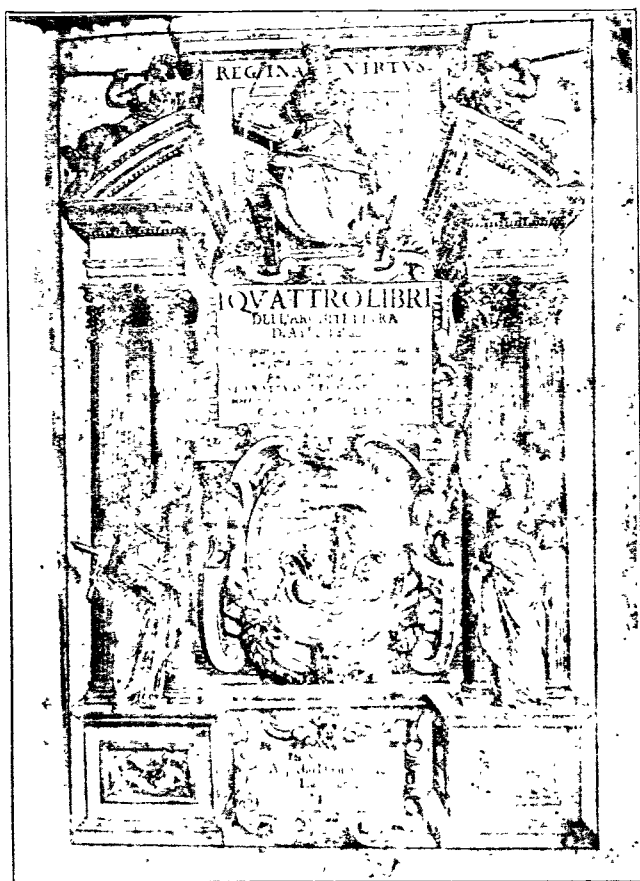


LEONE BATTISTA ALBERTI
(R I B A. Collection.)



TITLE PAGE OF ALBERTI'S 'HECATOMPHILIA' (1534 Edition)
(R I B A. Collection.)

36 plates, including title page and a page of text. Labacco, who was a pupil of San Gallo, lived in Rome for forty years, and these plates are from the first edition of a work published in 1557. We have also various French editions of Vignola, including that of D'Aviler, who accompanied Desgodetz to Rome in 1614 and was with him captured by Algerian pirates on the way. Two English editions appeared within a few years of each other. The first was by John Leeke, "Hydrographer to the King's Most Excellent Majesty," who printed and sold mathematical instruments and maps at the Signe of the Atlas, in Russell Street. "The dark and improper directions" which Joseph Moxon found in Leeke's work induced him to undertake a fresh, and certainly a more rhomatic and lucid, translation, which was published in small octavo in 1655 with the title *Vignola or the Compleat Architect*, and ran through numerous editions. Joseph Moxon also published in 1670 a work on Perspective, stating that he was induced to do so because the translation of Serlio, published in 1611, contained the only information in English on the subject. Moxon's work is also valuable on account of the engravings by William Faithorne, the elder 1616-1691, which are now rare. It is a little curious that Moxon, who was familiar with Vignola's writings, does not refer to his treatise on the same subject which was published in Rome in 1583.



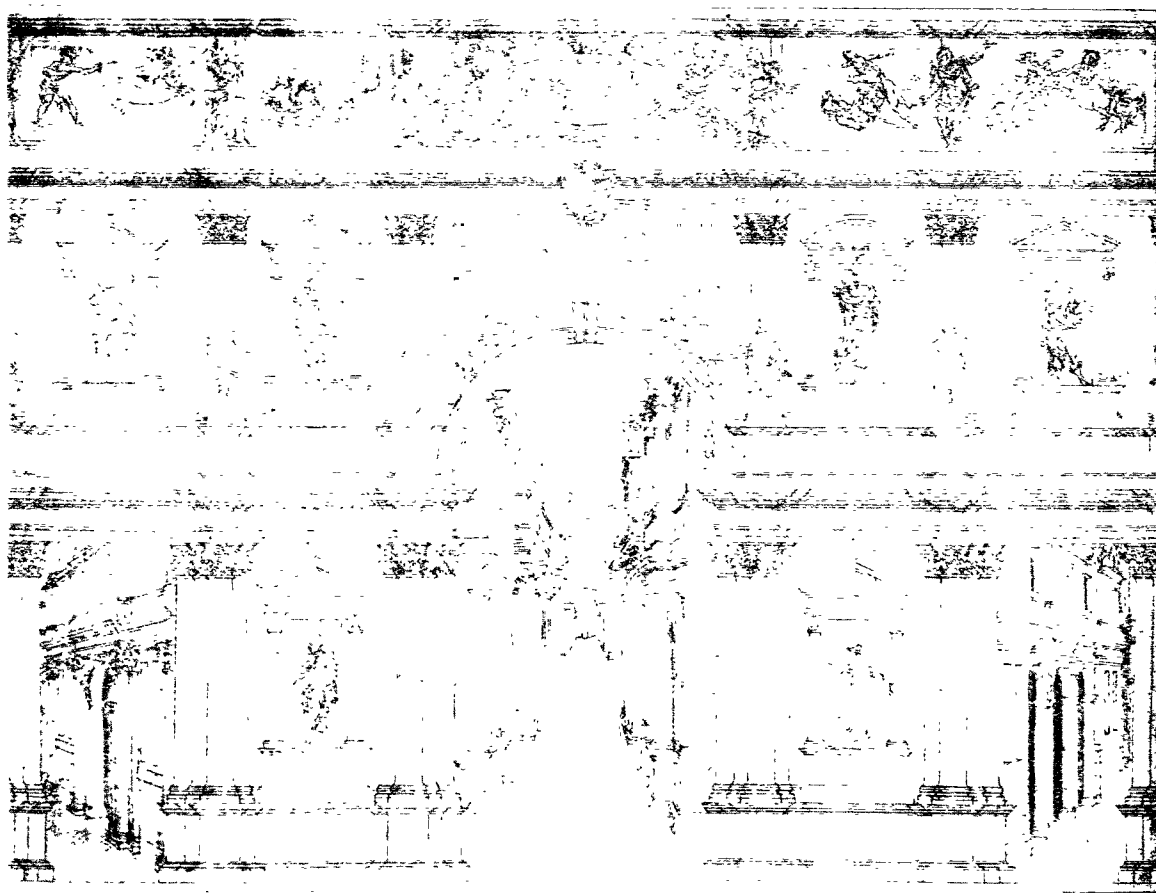
THE FIRST EDITION OF PALLADIO'S "I QUATTRO LIBRI DELL'ARCHITETTURA,"
WITH LORD BURLINGTON'S SIGNATURE — (R.I.B.A. Collection)

As we have seen, the writings of Serlio and Vignola were not unknown to English readers in the seventeenth century, but it was a famous contemporary of Vignola, Palladio, whose influence, largely due to the enthusiasm of Lord Burlington, became the most authoritative in this country. The Library has the first edition of Palladio's *Quattro Libri dell'Architettura*, published ten years before his death in Venice, 1570, which contains the autograph of Lord Burlington on the title page, and no doubt formed part of his library. The Library also possesses a reprint of this work published at Venice in 1601, and also the 1616 edition. Palladio published two other books, *L'Antichità di Roma*, in Venice, 1534, of which we have the edition in Latin and Italian, with notes by C. Fairfax, published at Oxford in 1709, and the *Commentari di C. Giulio Cesare con le figure in rame degli alloggiamenti, de' fatti d'arme, etc.*, 4o, Rome, 1618, the second edition, with illustrations showing the disposition of armed forces. Numerous translations of Palladio's four books began to appear in the seventeenth century. The earliest, and then only the first book, was made by Richards, and published in 1633, which ran through at least twelve editions. The 7th edition, which is the earliest in the Library, was printed for H. Tracy at the Three Bibles, on London Bridge (1708), and contains an illustration of "the new model of St. Paul's

Architect, and ran through numerous editions. Joseph Moxon also published in 1670 a work on Perspective, stating that he was induced to do so because the translation of Serlio, published in 1611, contained the only information in English on the subject. Moxon's work is also valuable on account of the engravings by William Faithorne, the elder 1616-1691, which are now rare. It is a little curious that Moxon, who was familiar with Vignola's writings, does not refer to his treatise on the same subject which was published in Rome in 1583.

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in London, as it is to be built," and subsequent editions contain illustrations of the Cathedral "as it is now re-built." Leoni, the protégé of Lord Burlington, Isaac Ware, and Edward Hoppus were later responsible for translations. Leoni's handsome edition was published in 1715 in English, French and Italian, with copper plates engraved by Bernard Picart, a well-known French engraver who had settled at Amsterdam. There is a well-known copy of Palladio in Worcester College Library, Oxford, containing marginal notes by Inigo Jones. Leoni copied these notes, which he intended to incorporate in the first edition of his translation, but they did not appear until the third edition in 1742. Palladio, like his predecessors, Alberti, Serlio and Vignola, visited Rome—the quarry of all the great architects of the Renaissance—where he measured and drew the famous buildings of antiquity, the Roman Baths,



PORTION OF A DRAWING OF THE OLYMPIC THEATRE, VICENZA.—Palladio Series, Burlington-Devonshire Collection

These drawings after his death remained buried and forgotten in a house at Masera, near Asolo, which he designed for Monsignore Daniello Barbaro, where Lord Burlington discovered them.

Lord Burlington published in London, in 1730, for private circulation, a selection from the drawings of the Baths, with the Italian title, *Fabbriche Antiche diseguate da Andrea Palladio e date in luce da R. Conte di Burlington*, containing sixteen double and eight single plates, a rare volume, of which the Library possesses a copy. In his introduction to the volume Lord Burlington foreshadows the publication of a further volume of Palladio's drawings, an intention which, however, was never carried into effect. Ottavio Bertotti Scamozzi published in Vicenza, in 1785, a book on the Baths of Rome, largely founded on Lord Burlington's publication. Charles Cameron, who "measured many

of the buildings on the spot," republished the drawings again, with many additions, in 1772, second edition 1775, which we have. Scamozzi in 1776-83 published at Vicenza four folio volumes dealing with Palladio's own buildings, and a second edition was published in French in 1786, and a second Italian edition in 1796: both the latter copies are in the Library. Palladian bibliography is extensive, and forms one of the most important chapters in histories dealing with the Italian Renaissance and later architecture.

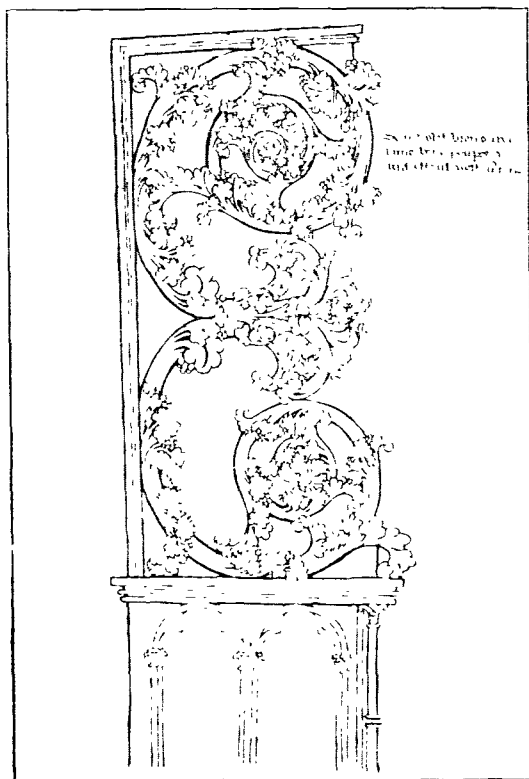
The fourth great protagonist of the Italian Renaissance and authority on the orders and principles of architecture, Vincenzo Scamozzi, published two books, the first at Venice in 1583, *Discorsi sopra l'Antichità di Roma*, with forty copperplate engravings by Battista Pittoni, a brother Vicentino: the second, *Dell' idea della Architettura universale*, published thirty-two years later (fo. Venice, 1615), is a voluminous work, containing in two volumes 722 pages, without including the pages of a copious and useful index. The first editions of both these works are on the Library shelves. As in the case of his predecessors, translations of his works appeared in other countries, although not very speedily. A much abridged English translation, made from the Dutch, was published in London in 1669 under the title of *The Mirrour of Architecture or the Ground-Rules of the Art of Building exactly laid down by Vincent Scamozzi Mr. Builder of Venice*: an abridged translation also appeared at Nuremberg in 1678. D'Aviler was responsible for a French translation published in 1685.

The works of other Italian writers during the Renaissance are represented in the Institute collection, but with Scamozzi we come to the end of a definite period. We have later the co-mopolitan architects of the members of the Galli Bibiena family, who built theatres, devised stage scenery, and organised the festivals for court celebrations, chiefly in Austria, and wrote books. The authorship of the books of the various members of the family (there were five altogether) presents something of the same bibliographical difficulty as the earlier family of the Du Cerceau, in France: it is, at any rate, a little confusing. In the Drummond Stewart collection of drawings we possess original examples of the brilliant draughtsmanship of two members of this family—Ferdinand and his son, Giuseppe.

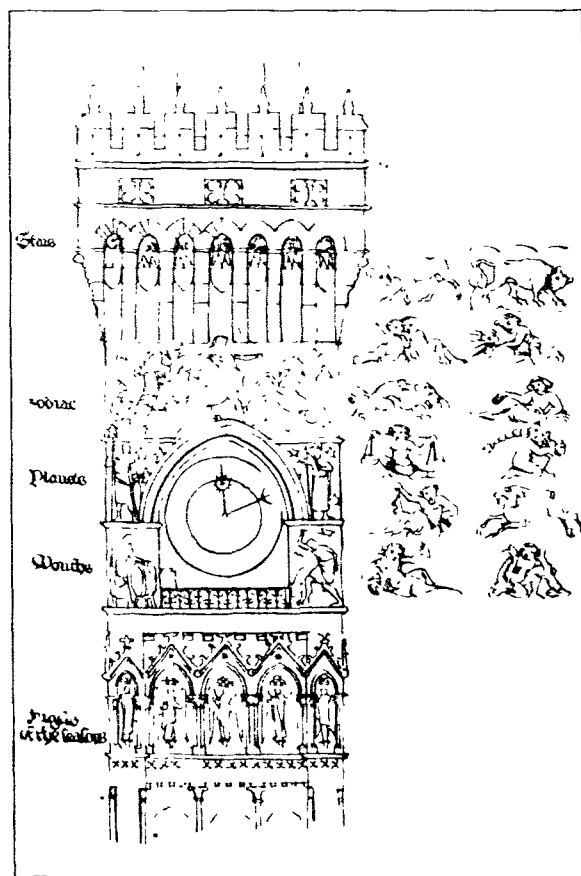
With the works of Piranesi we arrive at a culminating point of architectural draughtsmanship. The seventeen volumes possessed by the Institute, including the famous *Carceri* volume, form a fairly complete set of his engravings, and are stated by Mr. A. M. Hind, the authority on the various states of the plates, to form a good set. Piranesi, although he never visited England, was, as we know, intimately associated with Robert Adam (to whom he dedicated the 1762 edition of his *Campo Marzio dell' Antica Roma*) and a friend of George Dance, Robert Mylne, and other English and Scottish architects of the eighteenth century, who, no doubt, influenced by the Early Italians, sought and found in Rome the foundation of their architectural education and inspiration. The Institute possesses an interesting testimony to the close and friendly relations existing between Piranesi and Robert Adam and Robert Mylne—directly, in a letter from Piranesi to Robert Mylne, and indirectly in a business letter from Robert Adam to his bankers and agents, James and Clerk, of London. Piranesi's letter, consisting of three closely written folio pages, is far the more interesting and was written on the 11th November 1760, when his *Della Magnificenza ed Architettura de Romani* was on the point of publication, but was being delayed by the Pope—to whom the book was dedicated—"from whose sovereign beneficence," he states in the letter, "I have received a present of 1,000 Roman scudi." In the letter, which touches more matters of interest than I can possibly refer to, Piranesi deplores the inaccuracy of Desgodetz: he informs Mylne "that the statues and marble reliefs are being executed at the Trevi Fountain, and that the monks of S. Croce have caused the Amphitheatrum Castrense to be excavated in order to render the site better suited for agriculture." It is generally known that Piranesi engraved some plates for the *Works in Architecture* by Robert and James Adam (four plates of sections and details of Sion House in part iv. of the second volume), "the largest," according to the authors, "he has ever attempted in regular architecture": but it is not so well known that he engraved for Robert

Mylne a view of two arches of Blackfriars Bridge (now replaced), which was published in 1766, and of which two copies are preserved in the Institute collection.

While I am speaking of Italian authors I should like to refer to the original drawings of Italian architecture (but not by an Italian) a recent gift, for which the Institute is indebted to Mr. St. Clair Baddeley. When Peter Paul Rubens visited Italy between the years 1600 and 1608 he, according to his biographer, Dr. Waagen, remained longer at Genoa than any other part of Italy, and "as an occupation of secondary importance he took sketches of the most interesting palaces which were afterwards published (Antwerp 1613-1622) in two folio volumes of engravings, *Palazzi di Genova*." Mr. Baddeley's present comprises 120 of the 139 original drawings made for the book, supplemented



CARVING OF A CHURCH STALL FROM VILLARD DE HONNECOURT from Lassus and Darcel — R.I.B.A. Collection).



A SKETCH FROM WM. BURGESS' SKETCH BOOK, showing a design for the Tower of the New Law Courts.

by sixteen copperplate engravings of the drawings which are missing, all bound together in one folio volume. The title-page of the published work states that the drawings were "*raccolti e designati da P.P.R.*" and in the preface Rubens says, "In this little work I give the plans, elevations and façades and two sections of certain palaces which I collected at Genoa, not without trouble and expense, although I had the good fortune to be able to avail myself to some extent of the work of another." The engravings are ascribed to Nicholas Ryckmans, the Flemish engraver, whose signature is on the first plate; but the ascription of the authorship of the drawings to Rubens himself is problematical, although notes on many of the drawings bear a close resemblance to his handwriting. Although Rubens was accused by later authorities of inaccuracy, and was inaccurate, in these drawings, this does not diminish interest in the collection or the pleasure in its possession.

Since the beginning of the nineteenth century the volume of literature on the architecture of the Italian Renaissance has been considerable and is well known to all students. During the last thirty or forty years photography has replaced engraving, with which art the literature of architecture had been so closely associated since the invention of printing. If this and "process-block" substitution have increased the illustrative value of books it has certainly lessened their artistic interest.

Before dealing more generally with the early French books in the Library, I should like to refer for a moment to the sketch book of Villard de Honnecourt, of which a facsimile copy was published in Paris in 1858, under the direction of MM. Lassus and Darcel. The original, formerly in the Abbey of Saint-Germain-des-Près, is now in the Bibliothèque Nationale. Although the volume is confined to sketches with marginal notes, it is, as a whole, a document of a most personal and intimate kind and throws considerable light on the manner of life and thought of a Gothic architect of the early part of the thirteenth century. The author was born at Honnecourt, on the Scheldt, near Cambrai. He was probably the architect of the choir of Cambrai Cathedral, now destroyed. He visited Laon, Chartres, Lausanne and Rheims (the last named during the building of the cathedral). He then visited Hungary, in the capacity, it is supposed, of a master mason. He worked in collaboration with Pierre de Corbie, a mediæval architect, whose name has not been lost. His sketches show his skill as an artist, and indicate a variety of interest that recalls Leonardo da Vinci, but invested with Gothic spirit and feeling. The second page of the sketch book contains the following dedication:

"Villard de Honnecourt salutes you, and prays all those who work in the various kind of work contained in this book to pray for his soul, and to remember him; for in this book one may find great assistance in learning the principles of masonry and construction in carpentry. You will also find in it the method of drawing the figure as geometry commends and enjoins." It is perhaps a far cry from Villard de Honnecourt to Wm. Burges; but the Institute possesses a sketch book of Wm. Burges in which the drawings, also made on vellum, suggest the influence both in form and matter of the earlier book with which Burges was quite familiar.



PHILIBERT DE L'ORME. (RIBA Collection)

Architectural literature, after the invention of printing, followed pretty much the same course in France as it did in Italy, but not until some half a century later. Philibert de l'Orme's *Nouvelles Inventions pour bien bastir, et à petits Fraiz*, was published in 1561, and Jean Bullant's *Reigles generale d'architecture des cinq manieres de colonnes* was published three years later. It may, however, be taken for granted that the works of Vitruvius, Alberti and the Italian writers of the early days of the Renaissance, were well known to French students. The Library contains an extensive collection of the French authors from the time of De l'Orme to the present day. The works of Jean Bullant, one of the earliest architects of the French Renaissance, are not, however, represented in the collection. Perhaps my mentioning the omission may induce some lucky possessor of his book on the Five Orders to despoil himself in the interests of a larger public. I regret also that we have only in facsimile the complete edition of the books of Jacques François Blondel, although we have an imperfect copy of the original edition. Three great contemporaries, Bullant, De l'Orme and J. A. Du Cerceau, are identified with the early architectural literature of France. In France, although in the following century, De l'Orme occupied pretty much the same position as Alberti in Italy. Both men were possessed by a vast intellectual energy and capacity for hard work; but De l'Orme had not Alberti's abundant versatility. He was the author of two books; and in something of the

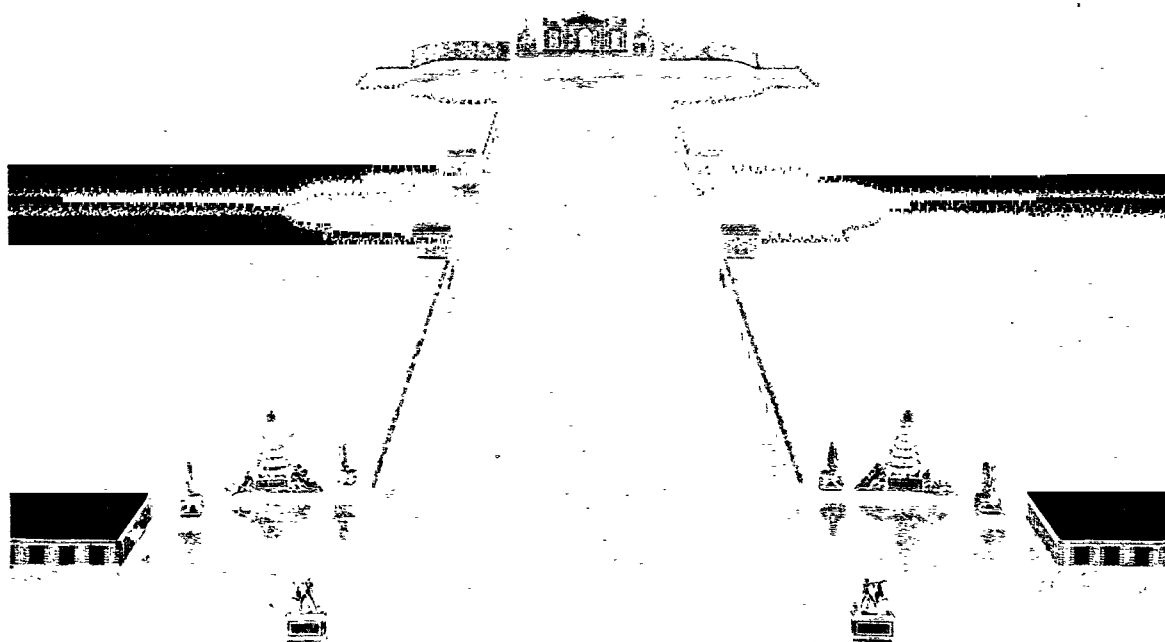
same manner in which Voltaire referred to Shakespeare, at a later time, he gave credit to himself for having introduced into France a better method of construction than the barbarous Gothic—*telle façon barbare*. He states in an epistle to the readers in his *Nouvelles Inventions pour bien bastir* that he began, at the age of fifteen, what we would now call the practice of architecture—*les œuvres que j'ay commandé et ordonné faire depuis l'age de quinze ans*, and that he had visited various countries. It appears that in his young manhood he spent four years in Rome. The book contains a dedication to Charles IX. and is a specimen of the flamboyant dedications in which authors indulged until the eighteenth century. In this dedication he supplicates the Omnipotent "to endow the monarch with the wisdom of Solomon, the magnanimity of Charlemagne, the dexterity of Caesar, the strength of Samson, the knowledge of Plato, the eloquence of Cicero, the prudence of Aaron, the constancy of Socrates, and the happiness of Augustus." There are numerous plates in the book illustrating his discoveries in the science of construction. De l'Orme's second work was *Le premier Tome de l'Architecture*, published in 1567, consisting of nine books, amply illustrated with wood-cuts. The Institute copy bears the date of a year later. In Worcester College Library there is a copy of this edition containing the autograph of Inigo Jones. We have also the 1648 edition of his complete works, published at Rouen, which contains a portrait of the author.

Just as De l'Orme devoted himself largely to the exposition of architectural construction and the practical side of building, his contemporary Jacques Androuet du Cerceau, the most famous member of a distinguished family of artists, devoted himself more to the study of design and to illustration. There is some conflict of opinion as to whether Du Cerceau was an architect, whether, indeed, he was more than a draughtsman and an illustrator of architecture. De Grey Müller and Sir Reginald Blomfield are exponents of the opposing views. The same uncertainty seems to exist in regard to his visit to Rome, although it is generally presumed that he was there about the same time as De l'Orme—that is, somewhere between the years 1531 and 1534; but whether Du Cerceau was an architect or not scarcely, if at all, diminishes his value to the student. His great qualifications as an architectural draughtsman and engraver are expressed in *Des plus excellents bastiments de France* which provides an invaluable record of contemporary building of the sixteenth century. This work was published in two volumes, of which the Library possesses the first edition of the first volume, published in 1576, bound together with the 1607 edition of the second volume (originally published in 1579), as well as the 1611 and 1615 editions of his *Livre d'Architecture*, and the first edition of his *Livre des Edifices Antiques des Romains*, published in 1584. Mr. W. H. Ward, the author of *Architecture of the Renaissance in France*, published a few years ago reproductions in photogravure of a series of Du Cerceau's drawings which are preserved in the British Museum. I give on the screen, for the purpose of comparison as well as to show Du Cerceau's variety of manner in the two forms of art, each so accomplished in its way, a drawing of the Château de Blois taken from Mr. Ward's book, and as it appeared as an engraving in *Des plus excellents bastiments de France*.

Apart from the gaps I have mentioned, the Institute collection of French works is representative and generally complete. It includes the first edition (1623) of Pierre Le Muet's *Manière de bien bastir pour toutes sortes de personnes*, of which an English translation was published in 1670 under the title of *The Art of Fair Building*; Mathurin Jousse's *Le Secret d'Architecture* (1642) and Perrault's *Ordonnance des cinq Espèces de colonnes selon la methode des Anciens* (1683 edition). The last work, which was translated into English by John James of Greenwich (the architect of St. George's, Hanover Square) in 1707, contains the charming vignettes by John Sturt. Perrault's greatest literary achievement was, perhaps, his translation of Vitruvius, with a scholarly commentary, published in 1673. The first and three later editions are in the Library.

The engravings of Jean Marot and his son Daniel have become very rare, and the order and time of their publication, even with Destailleur to consult, is a difficult matter to disentangle. The Institute possesses two copies of the edition known as "Le Grand Marot,"—one forming part of the

Fergusson bequest, and the other bought at the sale of Lord Bessborough's collection in 1884, but neither copy with a title page. The Bessborough copy contains 220 plates and the Fergusson copy 156 plates. The Institute copy of "Le Petit Marot," *Recueil des Plans Profils et Elevations des plusieurs Palais, Châteaux, Eglises, Sepultures, grottes et Hostels bâtis en Paris et aux environs avec beaucoup de magnificence par les meilleurs architectes du Royaume*, a small quarto volume, is probably the 1670 edition of this rare work, containing 122 plates without the title page. Daniel Marot, who collaborated with his father and Jean Le Pautre in the production of engravings, was obliged to leave France owing to the religious persecutions which followed the Edict of Nantes (22nd October 1685), and settled in Holland, where he carried on his work as a decorator and architect. He accompanied William of Orange to England in 1688 and bore the title of *Architecte du Roi*. A reminiscence of his visit to



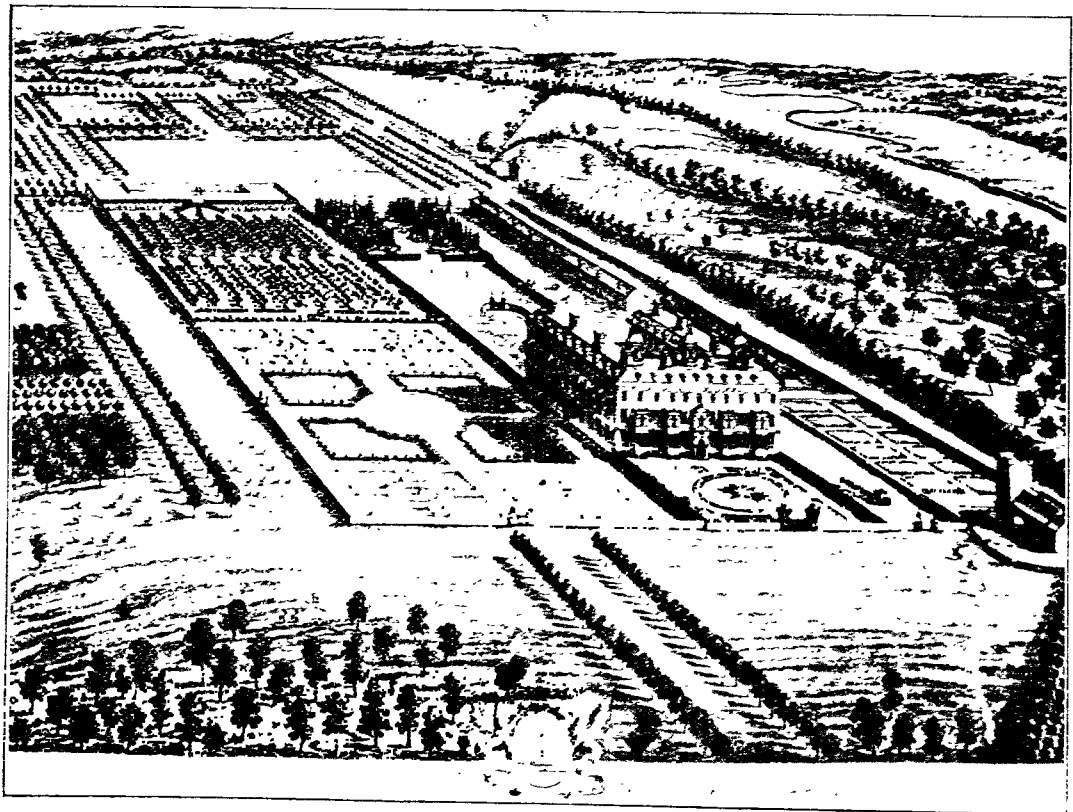
ILLUMINATED DISPLAY AT VERSAILLES, 12th May 1664. From the *Cabinet du Roi* Series —(R.I.B.A. Collection.)

England is to be found in his *Œuvres du sieur D. Marot, contenant plusieurs Pensées utiles aux Architectes, Peintres, Sculpteurs, Orfèvres, Jardiniers et autres* (fo. Amsterdam, 1712) (of which we only possess a reproduction published at Berlin in 1892), which contains the plan of a garden bearing the inscription *Pantheon d'Ampton Court*; but, I believe, there is no record to indicate that Marot was associated with the planning of the garden at Hampton Court. The book also contains designs for a royal carriage for the King of England made at The Hague in 1698, not unlike the ornate equipage which is still used by the present King and Queen on State occasions. Whatever may be the prevailing opinion of the taste of the style Louis XIV., Destailleur regards Daniel Marot as one of its most typical exponents. His versatility in the invention of ornate design was certainly remarkable.

The works of the two brothers Jean and Antoine Le Pautre are represented in the Library—the first, the celebrated draughtsman and engraver, the second, "*Architecte du Roi*," his slightly younger brother. The Institute does not, unfortunately, possess a copy of the published volume of this most notable

artist and designer of the Louis XIV. period. The selection of his work, published by Decloux and Doury in 1850, *Collection des plus Belles Compositions*, by Jean Le Pautre, is not very satisfactory. His engravings are, however, to be found in numerous other works. We find them in Desgodetz's *Les Edifices Antiques de Rome* (fo. Paris 1682), and in the remarkable series of engravings known as the *Cabinet du Roi* collection. Le Pautre's versatility in design was so admired that French architects, towards the end of the eighteenth century, recommended the study of his work to their pupils *afin de réchauffer l'imagination*, and probably do so to-day. The Institute's fine collection of the *Cabinet du Roi* series of engravings, contained in twenty-two large folio volumes, is one of its most valuable possessions, and marks a brilliant epoch in the history of the art of French engraving. This splendid series of engravings originated in the King's desire to present to his brother monarchs and other distinguished persons a record of his achievements, and those of his predecessors, as a collector of works of art, as a builder, as a conqueror in battle as well as of the great ceremonial occasions at Versailles and elsewhere. It is especially interesting to architects on account of the engravings of the buildings of Versailles, and other royal buildings, by Le Pautre, Israel de Silvestre, J. Marot and other great engravers of the time. The engravings are interesting as a record of the art of engraving at one of its greatest periods by its most eminent exponents including, besides those I have named, the work of Gérard Audran, Edelinck, Baudouins and others. I give you on the screen an engraving by Le Pautre of an illuminated display at Versailles (see p. 63), and one of Silvestre's views of Versailles.

(To be continued.)



ENGRAVING OF LORD CRAVEN'S HOUSE AT HAMPSHIRE MARSHALL, BERKSHIRE, ENGRAVED BY SIR BALTHAZAR GOLBAEC, FROM KNIFE & RIPS. "Nouvelles Théâtres de la Grande Bretagne," 1768. (R.I.B.A. Collection.)

ARCHITECTURAL EDUCATION.

Papers read at the Franco-British Conference of Architects held at Paris, 12th-13th November, 1920.

III.—THE SCHOOL OF ARCHITECTURE.
LIVERPOOL UNIVERSITY.

Any real attempt to organise a system of architectural education in the United Kingdom has only been made during the last twenty-five years: whilst in France a definite scholastic method has been established and developed for over two and a half centuries. It necessarily follows, therefore, that as far as the technique of training in architecture is concerned we have come here with the object rather of receiving than of giving advice.

Till the foundation of the Liverpool University School in 1894 there was no institution in Great Britain giving full-time organised teaching in architecture throughout the day. Now we have several such schools, of which two—the Liverpool University and the Architectural Association Schools—have set up courses of instruction of five years' duration. The five years' course of the Liverpool School leads either to a Diploma or, in the case of matriculated students to a Degree—that of Bachelor of Architecture—the Liverpool School having academic status. Both the five years' courses established at Liverpool and at the Architectural Association School have recently been recognised by the Royal Institute of British Architects as of sufficient thoroughness and merit virtually to qualify graduates of those courses for membership of the Institute, a qualification which will certainly confer the right to practise under the terms of any statutory registration of architects that may in the future come into force.

But although no scholastic system of architectural education in any sense comparable to that of the *École des Beaux-Arts* was in operation until recent times, it must not be understood that the art of architecture was not taught in England. It was taught in the way which obtained throughout the Mediaeval period, and which persisted so extensively in Europe during and after the Renaissance; that is to say, it was taught by the practising master to his immediate pupils. The studio or office of the architect performed, in effect, or was expected to perform, a double function: it was regarded not only as an instrument of practice, but as a vehicle of instruction. The system differed from the French atelier in that the students acquired their knowledge incidentally whilst assisting in the work of the master. So long as a general agreement regarding traditions of design existed, the results of this method were in many ways sufficiently satisfactory. But with the collapse of tradition which the Romantic Movement brought about in England, utter confusion followed in the teaching and practice of architecture. From an impersonal social art developing in a definite manner toward a definite end it became an affair, not simply of conflicting and rapidly succeeding fashions,

but of chaotic individualism. And it is with this heritage of disorder that the British Schools of Architecture have still to contend in their efforts to stabilise and give logical direction to the development of the art which it is their business to teach.

The first necessity for a school of architecture in England is, in our opinion, that it should make a decisive choice of tradition; and that, having made that choice, it should adhere to it. By a tradition we mean not simply a phase or style, but a general convention such as the Mediaeval or Classical. When the field of selection is so wide, the available knowledge of past and present conventions so vast, we believe it to be imperative that a policy of concentration should be adopted if there is to be any effective continuity in the teaching of a school. A five years' course may be regarded as the maximum period of full-time attendance which can practically be required of students. It is our experience that, within the very strict limitations necessarily imposed by a course of such length, no more than the principles and method of a single broad tradition of design can be inculcated. The whole field may and, we think, should be surveyed theoretically and historically by means of lectures, the study of illustrations, drawings, models, and casts, and by reading and travel under direction; but instruction in design cannot, we are persuaded, be undertaken with profit in the same manner. Sufficient time is lacking in which to attempt to do it; and even if it were possible to extend the period of full-time study, it would not seem to us to be to the advantage of any school that it should profess an invertebrate catholicity in design; for the vigour of a school of architecture must be dependent on the strength of its artistic convictions, and these will be revealed in the consistency of its practice.

On several grounds—æsthetic, historical, and philosophic—the Liverpool University School has elected to teach design in the terms of the classical tradition and in those terms alone. It has at no time departed from its original decision, and has never had cause to regret that it deliberately accepted the limitations involved. They have been to it nothing but a source of strength, and have made possible such definite reputation as the school possesses. That all schools should adopt the same tradition is not to be expected; nor is it to be desired. For it is clearly necessary to the proper functioning of architecture at the present time, when it is called upon to serve a civilisation so complex as our own, that it should be richly varied in its means of expression. If all schools accepted the same limited artistic creed, a universal stereotyped fashion would arise—a fashion inherently incapable of meeting all the legitimate claims that might be made upon its resources. The evil would obviously be still further aggravated if, in place of a number of separate schools collaborating on equal terms in the work of architectural education, a supreme school were to be created in the Metropolis, and were, through a centralised organisation, given the opportunity of dictat-

ing the stylistic training of the profession. Such a school might be swept by a fashion, as was the Beaux-Arts School at the time of the Art Nouveau Movement. A number of independent schools forms a series of outposts against such a fluctuation of fashion.

The architecture which we believe can most fittingly embody the majority of the programmes of our civilisation is a developed classical architecture. But the material of the classical tradition is, in itself, so great and so varied in kind that it can only be fully interpreted through the agency of several schools, each with its own attitude and distinct contributive function. Furthermore, there are a minority of special programmes—ecclesiastical and others—which, under particular conditions, may call for statement in a manner outside the classical convention. For the training of artists who shall be competent to deal with these occasions, specialist schools are perhaps advisable. In any case no single school, we believe, can, for the reason given, effectively cover in its educational capacity the total field of practice. Yet the whole field must be covered if all our architecture is to be worthily conceived and executed. Therefore the only solution is to be found in maintaining a number of schools.

In the United Kingdom that number need not be high. A multitude of small schools would be less useful than a few large ones established in the capital and in the chief provincial centres. Only large schools of architecture can acquire the staff and elaborate equipment which are necessary to the teaching of their subject, and it is only in large schools that students obtain the full benefit of working together in groups, of gaining varied experience in assisting each other, and in observing each other's methods. A school of sufficient size is also able to continue to attract to its studios old post-graduate members whose continued presence is invaluable in sustaining its methods and particular tradition.

The atelier system, as we understand and would endeavour to reproduce it in Great Britain, presupposes that the practising patrons are themselves competently trained in design; that they are the products of an architectural, not a business education; and that they follow a scholastic and not an individual tradition. This being so, it would appear for some little time to be impossible to extend the atelier system much farther in our country than has already been done. The fruits of the recently established school training are beginning to be apparent amongst the ranks of the practitioners, but probably a generation will have to elapse before the profession is really leavened by architects who have received a thorough grounding in their art in an architectural school, and who consequently understand the principles of logical instruction in architecture. For this reason the Liverpool University School, in the use it makes of the atelier system, limits its choice of patrons to practising graduates of the school.

One of the chief difficulties confronting architectural

educationists at present is the problem of correlating school training and actual practice. The difficulty is accentuated in England by reason of the gulf separating the average office-trained architect established in practice from the school-graduated student. It is a problem which, in that aspect, will only be nearer solution when all practitioners shall have themselves passed through the schools. In the meantime the Liverpool School achieves a partial reconciliation between the two worlds of the studio and the office by so arranging the curriculum of the last two years of its five-year course that students can pass six months of their fourth and fifth years respectively in approved architectural offices. Should this experiment justify itself the arrangement may conceivably in the future be still further extended.

A point which we would stress in the curriculum of the Liverpool School is the importance given to measuring old buildings of established merit. This measuring is first undertaken during the summer vacation at the end of the first year of session of school study, when the elements of form and construction have been absorbed and before any larger attempt is made at design. The compositions thereafter produced in the second year of study at once show the effect of the measured drawings which have been made. The student has an avenue of approach to design, and the comparative sobriety of his subsequent projects and the practicability of his details we attribute to the intimate acquaintance with good work which he makes whilst measuring. We consider, indeed, that the English insistence on the measuring of old buildings has a direct practical value that constitutes an important contribution to architectural education.

For the rest, concerning the actual technique of training we would add nothing, because, as we said at the outset, upon that subject we approach our French colleagues to learn and not to teach.

The question of administration we believe to be on a different plane, as the conditions affecting it in France and in the United Kingdom are essentially different. And for that reason we believe that we must work out our own problem of scholastic organisation and control. In France we know that the highest prestige is enjoyed by the educational institutions of Paris, and that ultimate qualifying status is conferred by them; that a tradition of centralisation dating from Louis XIV has an historic justification of its own, exemplified in the unrivalled record of the Beaux-Arts itself. But in the United Kingdom conditions of another order prevail. Our natural tendency in the highest grades of professional education is toward decentralisation and devolution to the furthest extent that is compatible with unity of control and a proper subordination of the interests of the parts to the interests of the whole. British educational institutions of the first rank are not State institutions, neither are they concentrated in London. In the form of virtually autonomous universities they are

distributed throughout the provinces. Then traditions and resources, the training which they give, confer ultimate prestige; and in consequence it is those professions whose members are exclusively trained through the medium of the Universities that in Great Britain enjoy the highest status.

Statement approved by the Board of Studies of Architecture and Civic Design, 26th October 1920. Signed on behalf of the Board by

C. H. REILLY, *Professor of Architecture, Chairman of the Board*; LIONEL B. BUDDEN, *Lecturer in Theory of Architecture and Concener to the Board*; PATRICK ABERCROMBIE, *Professor of Civic Design*; E. R. F. COLE, *Lecturer in Design*; J. E. MARSHALL, *Lecturer in Construction*.

IV—THE POSITION OF ARCHITECTURAL EDUCATION IN SCOTLAND.

By ALEXANDER N. PATERSON, A.R.S.A. [F.], President of the Scottish Institute of Architects.

While the subject entrusted to me in the Draft Programme of the Conference is given as "The Work of the Schools of Architecture in Scotland," I prefer, with your permission, to deal with it under the somewhat wider title indicated above. Also, I must preface any contribution to the Conference with the statement that, although invited by our Secretary, M. de Lafontaine, to take part as "official representative of the Architectural Schools in Scotland," and happy, from not a little inside knowledge, to speak of and for them, I have no authority from these Institutions to appear as their delegate.

In those days, which seem to me, alas! so far away, and yet, as time is reckoned in the history of nations and institutions, is but as yesterday, when I first found myself in Paris, enrolled as a student in the Atelier Pascal and at the Ecole des Beaux-Arts, such a thing as school training of the young architect was non-existent throughout the whole of Great Britain. Exception should perhaps be made of a class held on certain evenings of the week by the Royal Academy in London, and ably taught by the late Mr. Phené Spiers, himself a former pupil of the same atelier; but with so limited an opportunity the effect of such a course on the mass of students throughout the country was inappreciable.

Since these days what an advance has been made! Already, gentlemen, you have heard from the preceding speakers something of what has been and is being done in London, and, as regards the English provinces, in Liverpool. We, in Scotland, have not been behind-hand. To-day we have four centres of training: at Edinburgh, Glasgow, Aberdeen, and Dundee—the three former with a full course of instruction, equivalent in most respects (except as to its long tradition) to that at the Beaux-Arts in my time; the last mentioned on a more restricted scale.

But before dealing in detail with the aims and acti-

vities of these several schools, it will be of advantage to take notice of the outside influences affecting the scheme of education of the young architect in Scotland at the present time. These, in the main, are four: (1) H.M. Government, acting through the Scottish Education Department; (2) The Board of Governors of the above-mentioned Central Institutions, together with the Principals and Directors of their Architectural Departments; (3) the practising architects throughout the country, but principally in these centres; and (4) only recently, the Institute of Scottish Architects. To these should perhaps be added the R.I.B.A., with the Board of Architectural Education created by it, in view of a certain amount of direction given to the course of studies in the Scottish Schools by the Preliminary, Intermediate, and Final Examinations of which you have already heard. But such influence is very limited; indeed, the courses of instruction in at least some of our schools were settled on much their present lines before the Institute's graded examinations were introduced, and the proportion of Scottish students who have hitherto gone forward for the R.I.B.A. Intermediate and Final Examinations in order to qualify as Associates is comparatively limited—at least, of such as have remained in Scotland.

The first-mentioned of these controlling influences, the Scottish Education Department, supplies the funds required for the upkeep of the schools, in general to the extent of about three-fourths of the amount employed, the remainder being contributed locally from fees and endowments, etc., and requires, in consequence, to be satisfied as to the nature and sufficiency of the curriculum, the qualifications of the staff, etc. It endeavours, not altogether successfully, to keep all the schools up to the same standard by requiring the several Boards to hold joint meetings of representatives from each for the settlement of a common policy, and it appoints the Assessor who, along with a local jury of Architects, decides as to the sufficiency of the works submitted for the Diploma (afterwards referred to).

In connection with the above reference to funds, it may be mentioned in passing that grants and endowments permit of the fees paid by the students being fixed at a very moderate rate, if not so munificently remitted altogether as at the Beaux-Arts in this City of Light! Before the war, the covering fee per session of nine months for the full curriculum in day classes, amounted to £10 10s.; it has now been raised to £15 15s. For the students who are unable to afford even these fees, many bursaries are available from the Education Authorities. Besides these, maintenance and travelling scholarships of various values are granted.

Of the Board and Directors of the Schools—the second controlling factor—it need only be said that with them rest the responsible duties of appointing the staffs, and, in consultation with them, of fixing in detail the course of study.

sidered, of a Director with supervision of and responsible for both the artistic and scientific sides of the course. At Dundee, where the classes form a department of the Technical College and School of Art, the Course meantime does not proceed beyond the Certificate stage, though it is hoped that before long means may be found to extend it in line with the others. At Edinburgh, the Course is counted as one of five years, for only one of which, however, are day classes required, the remainder being taken by morning and evening classes. At Aberdeen two years' day classes are required, and these, by arrangement with the local Chapter of the Institute, are taken before the student enters an office, while counted full time for his apprenticeship. At the latter centres, also, a Post-diploma class has been instituted enabling senior draughtsmen or young architects already in practice to continue their studies with expert advice and direction, a scheme which might with advantage be adopted in the other schools.

Such, gentlemen, is, in sketch form, the present position of architectural education in Scotland, with a summary of the facilities available. Improvements and developments in many directions are, of course, to be desired. For some of these, I hope suggestions may be forthcoming at the present Conference, but, in view of the comparatively short time during which the schools have been established and for a country which, after all, has an area of but one-seventh and a population but one-tenth that of France, the situation, I venture to think, is not altogether unsatisfactory.

ALEXANDER N. PATERSON [F.]

REVIEWS.

LAMBETH PALACE.

The Crypt and Chapel of Lambeth Palace: Notes on their History and Architecture. By Philip Mainwaring Johnston, F.S.A., F.R.I.B.A. Reprinted from *Surrey Archaeological Collections*, Vol. XXXII. [Roworth and Co., Ltd., Newton Street, High Holborn.]

The history of this building is given with excellent photographic illustrations in Mr. Johnston's pamphlet, and will be read with interest by all students.

He ascribes the most ancient portion of the existing building to Archbishop Hubert Walter at the end of the twelfth century, but the crypt, as it is, was built in the early thirteenth century. Attention is drawn to the fact that after 700 years the vaulting is almost as perfect as when it was constructed. It is carried by three central Purbeck columns and by corbels in the thick walls. There is a doorway of the same date. The windows have a treatment that is very unusual, and may be unique. The heads are segmental internally, but outside the segment is crowned by a blind trefoil arch. The original wrought-iron grilles still exist, and are coeval with the building. Mr. Johnston says the east window is the least known and best preserved example of a thirteenth century window—of a rare

type—in London, and he has little doubt that it was constructed by the same masons who worked on the choir of Rochester Cathedral. It was in this crypt that Anne Boleyn in 1536 was tried and condemned by Archbishop Cranmer.

The chapel above, the date of which the author places at 1241-45, is remarkable in that the construction of its outer walls is in fact one of buttresses connected by curtain arches which overhang the wall face of the window plane 2 feet, the windows themselves occupying the whole width between the buttresses, a feature usually associated with the Perpendicular period. Examples of similar treatment are found in some of the larger Irish churches of the thirteenth century. He draws attention to the graduated height and width of the lancets. In the triplets the side lights are 2 feet 10 inches wide, the central one 3 feet 5 inches; and in the quintuplets the outer lights are 2 feet 4 inches, the central one 4 feet, and the intermediates 2 feet 10 inches.

The beautiful double doorway and the oak doors which remain in a very perfect state, of the thirteenth century, are dealt with in detail. The whole monograph is a valuable addition to the literature relating to mediæval architecture in London, and is opportune at the present time when earnest men are trying to induce its citizens to take a more active interest in the great metropolis in which "they live and move and have their being."

EDWIN T. HALL [F.].

GEOMETRICAL DRAWING.

Geometrical Drawing—and its Practical Application. By Alfred E. Holbrow, A.R.I.B.A., M.S., A., of the School of Architecture, The Polytechnic, Regent Street, W. 2s. net [G. & G. and Sons, Ltd., 13, Warwick Lane, London, E.C.]

This book is a valuable contribution to our technical literature, notwithstanding that a host of good text-books on geometry already exist: the reason being that the author has fully realised that his subject, to be of real value, must meet the needs of the workshop and drawing office as well as the classroom. The book is welcome inasmuch as the author is well known among numerous past and present students in architecture and building, and his able discourses on geometry are well remembered by them.

The book is planned primarily to meet the modern demands of the upper classes in elementary schools and the lower forms of secondary schools, but its scope and usefulness should command a much wider field. The diagrams (of which there is no lack) are delightfully clear and self-explanatory—which is an encouragement to beginners—the photographs are distinctly helpful, and what is of immense importance, the letterpress describes and explains with a lucidity as simple as it is instructive.

The author has succeeded in his object in showing that geometry is not merely a subject to be learnt at school and afterwards to be forgotten but a

of science forming an integral part of all structural work, and as such it is a reminder to architects of its high importance in relation to their work at once recall how Sir Christopher Wren set almost as the basis of many of his architectural decisions.

We have no doubt that the book will make good use of its art, for it shows a thorough realisation of the architect's attitude always true in so technical a subject. The artisan and designer also will find in common troubles here set forth and cleared up by quick and direct methods. The only fault is the book binding, and then covers, for it is sure to be handled, and in many instances will become a discoloured volume. The low price, however, largely overstates this objection.

JOHN C. ROGERS [A.].

CORRESPONDENCE.

The Opera House, Paris.

THE EDITOR, JOURNAL RIBA.

SIR—In the current number of the JOURNAL—one of the most interesting I remember—I was particularly struck with the Rev. Dr. West's admirable notice of Paul Goult's book on Viollet-le-Duc. It may interest Dr. West to know that in my student days, in the last paragraph of the oath administered to the *apprentis* on admission to our atelier was *Mort à Viollet-le-Duc!*

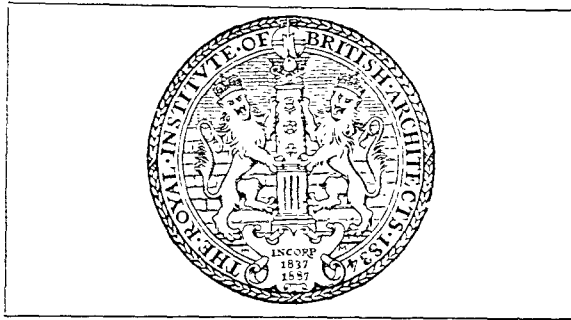
The purport of this note, however, is to call attention to what seems to me Dr. West's complete misunderstanding of the design of the Paris Opera House. That building is really a logical application of Viollet-le-Duc's own principles: it expresses externally its function, its plan, and its character.

The three main elements of a theatre plan in France are the *Foyer*, the *Salle*, and the *Scène* or stage. Looking at the building from the Avenue de l'Opéra one sees first the richly decorated peristyle which emphasises the *Foyer*, above this the dome of the *Salle*, and surmounting all, the simple mass of the stage. The *Foyer* is kept plain as housing the mechanical and working parts of the Opera, and gives force by contrast to the richness of the remainder—a somewhat florid richness perfectly in keeping with the uses of the building.

The much criticised attic was an afterthought, added by M. Garnier when the building was far advanced, as he feared the mass behind it would overwhelm the peristyle. A broad band of sculpture was at first proposed, but vetoed on the score of cost. One would like to have seen what Carpeaux would have made of it.

Why the absence of a pediment is a fault I am at a loss to understand; the present horizontal treatment of the front admirably expresses the *Foyer* and the vestibule below it.—Your obedient servant.

CHARLES E. SAYER [F.].



9 CONDIT STREET, REGENT STREET, W., 4th Dec. 1920.

CHRONICLE.

Proceedings of the Council.

15th November 1920.

THE BUILDING TRADES' PARLIAMENT.—The Council have appointed Mr. A. W. S. Cross, Vice-President, and Mr. James S. Gibson, Mr. Paul Waterhouse and Major Harry Barnes, M.P., members of Council, to represent the Institute in the Building Trades' Parliament, the new constitution of which has been approved.

THE MINISTRY OF HEALTH AND ARCHITECTS' FEES FOR HOUSING.—On the recommendation of the Practice Committee the Council have addressed the Ministry of Health, drawing attention to the fact that certain local authorities are putting pressure on architects with a view to arranging with them a rate of remuneration less than that of the scale agreed for housing work between the Ministry and the Institute, and calling upon the Ministry to maintain the agreed scale and resist any contrary action on the part of local authorities.

THE MINISTRY OF HEALTH AND THE STOPPAGE OF BUILDING.—On the recommendation of the Stoppage of Building Committee, the Council have addressed the Minister of Health and urged him to circularise all the local authorities to the effect that very careful consideration should be given to cases where the stoppage of factory or commercial buildings might be a cause for increasing unemployment among workpeople who would otherwise be employed thereon.

At the request of the Council, Major Harry Barnes, M.P., is moving an amendment to the Ministry of Health (Miscellaneous Provisions) Bill to provide for the representation of architectural bodies on the panels from which the Tribunals are selected.

THE BOARD OF ARCHITECTURAL EDUCATION.—The following have been appointed as Advisory Members of the Board of Architectural Education:—Mr. Washington Browne (Edinburgh College of Art), Mr. Arthur J. Davis (Patron First Atelier of Architecture), Professor E. S. Prior, A.R.A., M.A., F.S.A. (Cambridge University), Professor Ramsay Traquair (McGill University, Montreal), Mr. Adrian Berrington (Toronto University), and Professor Leslie Wilkinson (Sydney University).

UNEMPLOYMENT INSURANCE ACT.—Mr. Maurice

Webb has been appointed to represent the Royal Institute on the Joint Committee appointed to formulate a scheme for the formation of a Society for Architects' and Surveyors' Assistants under the Unemployment Insurance Act.

LICENTIATES' EXAMINATION.—The President having called attention to the fact that the last examination to qualify Licentiates for the Fellowship had now been completed, and that Mr. A. W. S. Cross and Mr. James S. Gibson had acted as Examiners for the whole of the examinations during a period of some ten years, a very hearty vote of thanks to Mr. Cross and Mr. Gibson was unanimously passed by the Council.

REINSTATEMENT.—One ex-Fellow and three ex-Associates were reinstated.

R.I.B.A. WAR MEMORIAL COMPETITION.—The President submitted his award in this competition, and it was decided to exhibit the drawings during the week beginning 22nd November, 1920.

Deferred Resolutions on Competitions and the Scale of Housing Fees.

The proceedings at the Business Meeting last Monday will be found briefly detailed in the Minutes of the meeting published on pages 62 and 63 of the present issue. At the suggestion of the President, and with the entire concurrence of the Meeting, both the resolutions to be moved from the Chair—viz. (1) the proposed insertion of new essential conditions in the Regulations for Architectural Competitions; and (2) the proposed substitution of the Ministry of Health's General Housing Memorandum No. 31 for the existing clause 9 of the Scale of Professional Charges—were deferred for reasons which are duly set forth in the Minutes. The Meeting gave opportunity, at the President's instance, for the discussion of the many vexed questions to which the changing conditions of the National Housing Scheme have given rise, and on which the experiences of several members present specially qualified them to speak.

The Office of Works and the National Housing Scheme.

The *Morning Post* of the 30th ult. makes the following comment upon the item entitled "House Building" in the Supplementary Estimate for the Civil Services for the current financial year:—

The amount demanded is not much—nothing to mention, in these days—but we learn from the attractive column headed "Details of the Above" that the Office of Works is now deeply engaged in the Government Housing Scheme up to the amount (at present) of £900,000 (of which £700,000 is repaid by local authorities). The balance is the "provision for expenditure on erection of houses undertaken by the Office of Works as agents for various local authorities proceeding with Housing Schemes approved by the Ministry of Health." It is, then, exactly as we predicted. The Office of Works, with that engaging unobtrusiveness which marks its climbing ambitions, is now building houses, and building them for no fewer than eleven local authorities. Quite apart from other considerations, we warn the public that in any enterprise undertaken by the Office of Works there will be no guarantee whatever that the money will be well spent, nor, in practice, will there be any check on the expenditure. If these schemes

are executed as they should be executed, under an architect who is professionally responsible both for the quality of the work and for every penny of expenditure, there is a solid guarantee of economy. But in the case of a Government Department there is no such thing. Quite the contrary. Moreover, it is no part of the duties for whose discharge the Office of Works was originally constituted to build houses. We lately referred to another furtive enterprise of the Office of Works, the building of a new spirit-room at the Natural History Museum, South Kensington. That the Office of Works should propose to do the work at all is a gross breach of etiquette. The Natural History Museum was built by an architect who was commissioned by the Government; and the only proper and courteous course is to employ the same architect or his successor. We observe that on 18th November the Financial Secretary to the Treasury stated, in reply to a question put by Colonel Newman, that only £10,000 was to be spent on the new building this year; that there is a grave risk of fire under existing arrangements, and that the total cost would be £75,000. Mr. Baldwin, we are informed, is mistaken. There is no risk of fire under existing conditions. As for the cost, we leave our readers to judge if a building about 200 feet long by 80 feet wide and four floors high can be built for £75,000, or anything like it. The cost cannot be less than £300,000, and under the Office of Works it would probably be a great deal more. And the new building is not immediately needed.

The fact is that the Office of Works, greatly augmented during the war, intends to maintain and to aggrandise its importance at no matter what expense to the public and with a cheerful disregard of the lamentable experiments in architecture for which the public will pay.

In the House of Commons on the 1st December, Captain Coote, member for the Isle of Ely, speaking on the Estimates in Committee of Supply, said that a very important question of public policy was wrapped up in these Estimates. Originally the Office of Works was established to look after the upkeep of public buildings and nothing else. If it was decided that they should in future step in where the municipal authorities and private enterprise had failed to provide the essentials of the community, well and good; but the community ought to do it with their eyes open. The Office of Works was never intended by Parliament to execute the functions of an architectural department.

The Position of the Building Trade.

Mr. Arthur Keen, *Hon. Sec. R.I.B.A.*, in a letter published in a recent issue of the Ministry of Health's organ, *Housing*, calls attention to several points that require consideration with regard to the present position of the building trade. He says:—

There are great arrears of building work to be overtaken and the number of men available is greatly reduced; very many men have, unhappily, been killed; for five years the supply of recruits to the various trades has been stopped, and many men have apparently gone on to aeroplane and other factory work. The amount of new building work in actual progress seems to be absurdly small in comparison with what one was accustomed to see before the war, and there appears to be little or no unemployment, at any rate among the skilled men. Repairs and minor works are occupying a good many men, but there is very little work of the usual kind going on, and that which is in hand is beset with worry and difficulty. The operatives, within the limitations that they impose on themselves, are doing well;

they are getting good pay, working for a reduced number of hours per week, and doing less in those hours than they could do. Human nature being as it is, we are not likely to see much change unless and until it can be shown that benefit will accrue to the men.

Building men are not peculiar in this respect: few of us work hard without being driven to it or without having the incentive that the prospect of ever-increasing gain offers to strenuous effort. I am not greatly surprised that the men, having the ball in their own hands, desire to retain it. They know that they are well off and they probably feel that if dilution or apprenticeship bring more men into the trade they may be prejudiced. But leaving out of the question for the moment the prospect of possible unemployment in the future, it must be obvious to them, as intelligent people, that they might fare still better by laying themselves out to get all that they could possibly earn by increased effort. It must always be galling to men of long experience and high skill to see their inferiors paid the same as themselves: but so it is. The more one sees of really capable workmen the more one's respect for them grows: in joinery, bricklaying, masonry, painting—all alike—the skill and precision of their work are amazing, and there is something very rotten in the condition of things that compels such skill to lose its due reward.

The plea of the trade unionist that payment by results encourages bad work is nonsense: there are plenty of highly-skilled trades where piece-work is the rule and where beautiful work is done: and it used to be the case that in the building trade the very best of the work was done in this way. The quality of piece-work depends on who does it and what is paid for it: it can be good, bad or indifferent, according to the price: "cheap and nasty" applies here as elsewhere. Why do not the best of the men take the matter up in their unions and insist on an alteration? If it really is the case that the fear of unemployment is behind it all, we architects might well set out the facts as we know them for the enlightenment of the operatives. The amount of work waiting to be done is enormous: everyone wants to build and very few are able to do so. The building schemes that fall through after plans have been drawn and tenders obtained, are far more than those that are carried out. The fact is that the possible demand for building is practically unlimited, and the price and the difficulty of the work are the only things which restrain that demand.

My own view is that trade unions are only half-awake: wages are the limit of their imagination. I suggest to them that they should look after the work as well as the wage. If they did all in their power to encourage skill and effort and secure good results they would find that they had quite enough power and authority to secure adequate payment.

Limitation of output is a poor negative policy. In the end it defeats itself. One has only to imagine it carried far enough for the result to be beggary and starvation. With universal limitation, there could be no other result. The war has brought home to us all the value of propaganda, and it is propaganda that we require in this matter. We want working men to know the facts about output and prosperity, and the facts should be enough without any theories. Among other facts let those that relate to the work now being done by other nations, the Americans, the Germans, the French, and the Belgians, be known. They are level-headed people, and a little insight into their methods might be valuable. I heard a few days ago of a building in France where 85 men, mostly masons, are working 11 hours a day at their own request: and it is

common knowledge that restoration in Belgium is proceeding at an extraordinary pace.

I want to see the unions grading their members according to capacity, and I want to see the best of the men taking piecework and employing those in the lower grades upon it. The whole trade would then become much more alive, there would be incentive everywhere, and the men would always have the prospect before them of entry into the better grade. There would be self-respect and prosperity as the result.

R.I.B.A. War Memorial.

Members and others who have knowledge of any names of Members, Licentiates, Students and Probationers likely to be missing from the R.I.B.A. Roll of Honour are requested to be good enough to inform the Secretary as soon as possible in order that the omission may be rectified. The erection of the Memorial from the winning design in the recent Competition is about to be put in hand, and it is necessary that the Roll be quite complete.

York Minster Windows.

A letter in *The Times*, signed by the Archbishop of York, the Lord Mayor of York, the Earl of Harewood, Sir Aston Webb, P.R.A. [F.], Sir Frederic G. Kenyon, Sir C. Harcourt Smith [Hon. A.], Mr. Walter Tapper [F.] and the Dean of York, calls attention to the "very serious situation which has arisen in connection with York Minster. The Minster possesses 109 windows containing thirteenth, fourteenth, and fifteenth century glass, forming a collection of mediæval glass not only unrivalled but unique. The art and craftsmanship of these windows is English. There is no such collection anywhere else in the world. If this is allowed to perish such a thing can never be seen again.

For years the work of careful preservation has been slowly proceeding, and 43 windows have been dealt with. But the circumstances of the War have given rise to a close examination of the condition of the remaining windows, and it is found that the need for more rapid action is urgent and immediate. Not only the lead work, but the glass itself, is in a very critical condition. In many cases also the stonework must be renewed. The Minster endowments are altogether inadequate for such an emergency: and a large and representative meeting was held last week, at which the Archbishop of York presided, and H.R.H. the Duke of York urged the need for prompt action. At that meeting, on the motion of the Lord Lieutenant, it was decided to take the necessary steps to raise adequate funds for the preservation of the glass. There is no question of 'restoration': our task is to preserve what is there. This can be done, but it is difficult and costly work. The immense size of some of the windows and the present price of materials and labour are two factors which increase the difficulty. At least £50,000 will be required. Yorkshire will do its duty: but for such an object and at such a moment we appeal with confidence to all those who value what the Duke of York truly described as 'this National Treasure.' Contributions should be addressed to the Dean of York, York."

M. Albert Louvet, President S.A.D.G.

The President has received the following telegram from M. Albert Louvet, President of the Société des Architectes diplômés par le Gouvernement:—"Regrettant vivement de n'avoir pu assister aux réunions confraternelles, envoie à son éminent confrère Simpson et aux délégués de l'Institut royal des Architectes Britanniques ses vœux les plus cordiaux et ses plus vifs remerciements.—LOUVET, Président Diplômés."

M. Louvet has been laid up with typhoid fever and was unable to be present at the Franco-British Conference reported upon in the last number of the JOURNAL. Mr. Simpson has written to him expressing the regrets of all British architects at his illness and wishing him a speedy and complete convalescence.

Proposed Reading Society of Architects.

At a meeting of Reading architects held last week it was unanimously decided to form a Reading Society of Architects, and a Committee was appointed consisting of Mr. Chas. Steward Smith [F.], Mr. W. Roland Howell [F.], Mr. H. Whiteman Rising [F.], Mr. Arthur S. Cox, Mr. Frederick G. Sainsbury, and Mr. H. S. Watkinson, with Mr. C. B. Willcocks [F.] as Hon. Secretary, to draw up a set of rules to be considered at a general meeting to be arranged later. The formation of a Berks. Bucks and Oxon. Architectural Association was discussed, and it was decided to call a meeting of the architects in the three counties later to consider the matter and obtain their views. In the meantime it was suggested that all architects interested in the formation of such an association should be invited to communicate with Mr. Willcocks, 11, Friar Street, Reading.

James Strong, Licentiate.

James Strong, Licentiate [*Institute Silver Medallist and Grissell Gold Medallist*], of Newton-by-Chester, whose death was recently announced at the age of fifty-four, served his articles with the late J. Douglas, of Chester, and afterwards came to London as assistant in the office of Messrs. Ernest George & Peto. In 1883 he was awarded the Institute Silver Medal for Measured Drawings, and in 1887 the Grissell Gold Medal for Construction. Leaving London, he became chief assistant to Colonel Walker, architect of Liverpool, and was eventually taken into partnership, the firm practising under the name of Walker & Strong. Mr. Strong's work was chiefly domestic, and is well known around Liverpool and Wirral, especially in the Hoylake district. His half-timber designs, an example of which is the Chester Fire Station, are much admired. The houses in the Chester Corporation's housing scheme on the Buddicom estate are being erected from his designs.

Mr. Horace Davies [A.A.] of Chester, writes:—"The death of James Strong is a serious loss to the small circle of Chester architects who have carried on a tradition. His work as a student was brilliant, and his winning two of the coveted prizes of the profession at the commencement of his career gave the promise, afterwards fulfilled, of successful and artistic work. His greatness was shown in his domestic work, in which he had blended the training he was so fortunate in having with those two masters of domestic art, John Douglas and Sir Ernest George, with his own innate ability. To an architect the houses he built possess a charm which no other architect of his time has given us. They are simple, direct in plan, with nooks and vistas adding an effect to the interior so naive and yet so natural; his exteriors fitting the plan, well massed and proportioned,

with an infinite care to detail, and together all so homely with an air of comfort. A wonderful draughtsman, his pride was in his finished work of brick and stone, and not in its presentation on paper. Those in his profession who were intimate with him will miss that kindly humour and lovable disposition, hurting none, giving his help to all who wished it. Unobtrusive and retiring in these days of advertisement he was a man whose untimely death leaves a blank and is a loss to all who care for the 'Mistress Art'."

The Marlburian War Memorial.

The Competition for the Marlborough College War Memorial has been won by Lieut.-Col. W. G. Newton, M.C. [A.]. The Competition was limited to Old Marlburians, and the Memorial is to take the form of a Speech-room. The designs sent in were assessed by Mr. John W. Simpson, President R.I.B.A., and were on exhibition in the Institute Galleries, 9, Conduit Street, W., during the past week. Col. Newton, who is the son of Mr. Ernest Newton, R.A., served in France from the beginning of the war and rose to the command of his battalion in 1918. He is now working in partnership with his father.

Westminster Abbey.

A Lecture on Westminster Abbey—The Story of the Nation as enshrined in the Abbey and its Monuments—will be given by Mr. S. Hurst Seager [F.], as one of the series of Illustrated Lectures arranged by the Royal Colonial Institute, on Wednesday, 29th December, at 3 p.m. The lecture will be given in Edward VII. Rooms, Northumberland Avenue, and the Dean of Westminster will preside. These lectures are usually free, but in this instance the Royal Colonial Institute are asking for subscriptions to it in aid of the Abbey Restoration Fund.

Cambridge University Press Announcement.

In the preface to a second edition of *Byzantine and Romanesque Architecture*, to be published immediately by the Cambridge University Press, Sir Thomas Jackson refers to the many changes which the buildings described in the work have undergone in the last few years. How, for example, the churches of Salonica are now restored to their original rite, though the finest of them, St. Demetrius, has been destroyed by fire. The new edition contains some fresh illustrations, and the author's drawing of St. Sophia, Constantinople, is now reproduced in colour.

Books Received.

The Art of J. A. Rickards, comprising a Collection of his Architectural Drawings, Paintings, and Sketches with a Preface and Sketch by Arnold Bennett, an Appreciation by H. A. Lamberton, and Technical Notes by Amor Fern. To London, 1920, 238 pp., 10 Technical Notes, 10s. 25-29, Torhill Street, Westminster, S.W.

Industrial Training with Discussion of Accompanying Activities—such as Town Planning, Street Systems, Development of Utility Services, and Related Engineering and Construction Features. By Morris Knowles, sometime Supervising Engineer, Camp Meade, Maryland, and Camp M. Cullen, Alabama. So. New York and Lond., 30s. net [McGraw-Hill Publishing Co., Ltd., 6 & 8, Bouverie Street, E.C. 4.]

The Church of Our Lady of the Hundred Gates in Paris. By H. H. Jewell, R.A., Gold Medallist and Travelling Student in Architecture, and F. W. Hasluck, formerly Assistant Director of the British School at Athens. Published on behalf of the Byzantine Research and Publication Fund. To 1920, 50s. net. Macmillan & Co., St. Martin's Street, London.]

Cantor Lectures (delivered before the Royal Society of Arts) on the Architecture and Decoration of Robert Adam and Sir John Soane, R.A. (1758-1837). With 21 illustrations. By Arthur E. Bolton, F.S.A., F.R.I.B.A. Price 2s. 6d. Society of Arts, John Street, Adelphi.]

Proposed Demolition of Nineteen City Churches. Report by the Clerk of the London County Council and the Architect of the Council for 1920. Price 3s. 6d. P. S. King & Son, Ltd., 2-4, Great Smith Street, S.W.]

Annual of the British School at Athens. No. XXIII. 1918-19. 30s. net [Macmillan & Co., Ltd.]

ALLIED SOCIETIES

Northern Architectural Association : Extracts from
Mr. Errington's Presidential Address.

There was a time—not so very long ago—when a President might have prepared the Address that is required of him at the opening of a new session some months in advance of its actual delivery, without any fear of its not being considered up to date. Things were going smoothly, slowly, and surely then, in striking contrast to the unsettled conditions at present prevailing, which makes it appear quite possible that a great deal of what I have prepared, though only a few days before its delivery, may be quite inappropriate and out of date at the time when it reaches your ears.

On the former occasion on which I had the pleasure of addressing you, at the opening of a new session, I directed your attention to the subject of "union"—one of the objects for which our Association was formed—and without which all our efforts to steer a straight course for the future well-being of our noble profession will be in vain. I feel it my duty to pursue this line of thought still further, and to urge its increasing importance under the new conditions which have arisen.

In our own local association what are we doing (1) to foster and encourage a good tradition in this place, (2) to improve the educational facilities of future architects, and (3) to get into closer union with those other Societies whose objects are similar to our own, and with some of which we are allied? We are fortunate in having a continuous tradition for upwards of sixty years. That is already established, and such privileges and advantages as we now possess are due to the strenuous and persistent efforts of those who have gone before. Our part or portion is to take pride in following those who helped to form the tradition in the past; to continue building it up, and to maintain its constant progress.

The idea of meeting at stated intervals for the purpose of conducting the business of our Association, and for listening to the reading of Papers and Addresses, is quite good in its way, but it does not go far enough. We must have more frequent opportunities of meeting together in an informal way, more discussions, and more blending together of all our members. Inasmuch as we have no limit or restriction with regard to the age of our members, we have surely the making of something really great, where those of us who are young and may be inexperienced can benefit by coming in close contact with, and by the experience of, those who are elderly, and where those of us who are elderly may benefit in a similar way by again rubbing shoulders with younger men, and by reimbuing some of the enthusiasm which is the prerogative of youth. It is by the more frequent meeting together of our youth and age that our hopes lie for the future: it has so many advantages, there is still so much for us all to learn, and we can only advance by trying to understand one another. By following this course we can increase and improve the tradition which has been handed down to us. Some of our members have already made a commencement in this direction, and it is hoped that it will result in the formation of a club, which will enable our rooms to be more frequently used than they have been in times past. Our ordinary meetings are usually on a Wednesday evening, and I would urge on all of you the cultivation of a habit of paying a visit to the rooms on that evening whenever possible, whether there is a formal meeting or not, just for a talk with anyone who may happen to be about, a cup of tea, a look at the building papers, or to spend a half-hour or more among the books of our library, which is one of our valued possessions perhaps not sufficiently appreciated.

I have dwelt at some length on this subject. It seems to me so important and, in a way, I believe it to be educational. We might, of course, confine our attention to

trying to teach people architecture—if it could be taught—but it would never do. The nature of our work is such that we have, the most of us, to keep our noses as close as possible to a drawing-board and rivet our attention there for the best part of every day, each working on our own particular line and unaware of the advantages which might accrue from more frequent combination with our confrères, resulting in that strengthening of the spirit of courtesy which is so essential to our welfare, that development of the feeling that our interests lie as members of a noble profession in combining with others in work for the common weal, a matter of perhaps greater concern than our own little affairs, however important they may be.

An address, on such an occasion as this, would be quite incomplete without more than a passing reference to the subject of architectural education. It is one of the things that matter, and I apprehend that reference will be made to the subject on such occasions as long as our Association continues its existence. I have read with much interest the very excellent paper delivered by Mr. Paul Waterhouse at the Royal Institute in February last on "The Future of Architectural Education." Mr. Waterhouse, as Chairman of the Royal Institute Board of Architectural Education, has special knowledge for dealing with this important subject, and though he made it perfectly clear that he was speaking for himself only, his remarks were very much to the point. I refer to the matter here because I think that every architect should not only read this excellent discourse, but should also carefully read and consider the discussion which followed the reading of the paper. I doubt whether any of us realise the importance and the effect of recent developments in this matter, the effect of such schools of architecture and civic design as are now in existence in London, Liverpool, Glasgow, Manchester, Leeds, and Sheffield Universities, the Architectural Association in London, and last, but not least, the school recently established at Cardiff, which is to embody the best of the educational experience from these other schools. If it had been possible for me to find the time I should have considered it one of my duties to visit these schools. As it is, the only one I am slightly familiar with is that at London University, where I found so much of interest, and where Professor Richardson so raised my enthusiasm that I came away with delightful thoughts of the possibilities for the future of our noble art. At the Liverpool School alone, I understand that there are nearly one hundred and fifty students, and the evidence of its work is already appearing in many directions. The President of the Board of Education has recently paid a visit to the Liverpool School, and in his address to the students he mentioned, in referring to the haphazard growth of our northern towns and cities, that one of the great objects of the present generation was to rebuild the North of England, or the greater part of it, and, in consequence, he looked with very great hope to the Liverpool School of Architecture. We can have no possible objection to that, and I would merely express the hope that when the time comes for the rebuilding of the great towns in our own area—possibly in some future generation—our Northern School of Architecture will be not only established but be so flourishing that the work may be accomplished with the aid and by the skill of our own school. I would remind you that we are pledged to increase the facilities for architectural education in our own district. We must work steadily in that direction, and I know of no object more worthy to be kept constantly in view.

At the opening of last session I outlined the position with regard to the registration of architects. Since that time there has been an important development, and the position with regard to this matter has once again been changed. It is not surprising that there would be difficulty in taking the matter up where it was left in 1914. So much has happened since then, and it is very doubtful whether the result of what was then contemplated would

have had the desired effect of consolidating the whole profession. We have suffered so much in the past through our being disunited that it is not surprising that one more combined effort should be made towards a scheme of unification of all existing bodies, particularly so seeing that the tendency of recent times has been to increase, rather than diminish, the number of such bodies. Until recently those likely to be affected by compulsory registration might be divided into three heads: (1) The Royal Institute, with the provincial societies in alliance with it; (2) The Society of Architects; and (3) the unattached architects (those not belonging to either of the above). Now there are two more recently-formed societies whose interests will have to be considered—The Society of Official Architects, and the Architects and Surveyors' Assistants' Professional Union—so that you will see how complex the matter really is and the great variety of interests which will have to be safeguarded before there is any tangible result. The further history of this development is briefly as follows:—In March last the Royal Institute approved of the Council's proposal to prepare and present for the consideration of the profession a more extended and comprehensive scheme than that covered by the resolutions of 1914, and the Council's further proposal to appoint a committee representative of the whole profession to prepare such a scheme was also approved. As the representative of our Association I attended the first meeting of this committee on July 20th at Conduit Street. It was a large and important gathering, with representatives from practically all the architectural bodies and of those who are unattached to any professional organisation. A lengthy discussion took place on the alternative methods of unification, based respectively on absorption and federation, and eventually a sub-committee was appointed to prepare alternative schemes and submit them to the Unification Committee. The difficulties to be overcome will, no doubt, be many and the way may be long, but we must concentrate our attention on this matter, so that by combined action something may be accomplished which will be of lasting benefit not only to those who succeed us but to the public of future generations. That is the forcible feature of the case. We are, most of us, elderly enough to know that what now seems possible of accomplishment is not for the benefit of ourselves personally but for those who are to come after.

There are at present only two kinds of building work which need engage our attention, and they fall, naturally, into one class or the other. The one is circumscribed and limited, and is referred to as "Housing," and the other is all-embracing, and is described as "Luxury Building." With housing I think we are all familiar; it has been written about and talked about, standardised and subsidised, and if any of these things could produce houses, either alone or in combination, we should now have such a plethora of them as would answer all our requirements for some time to come, but the fact is that for some reason or other the houses are still not very much in evidence. It is admitted that the need is great, but the difficulties are also very numerous, and are increased by those concerned not working together in that harmonious way by which something tangible might be accomplished. That the experience of architects in practice has been only very partially brought to bear on this subject is a matter of regret, not regarding only their own benefit but the benefit which might have accrued to the general public and to those who are supposed to represent their interests. In our own district I could point to several well-known architects, or firms of architects, who have every qualification for engaging in work of this description, men who have been accustomed by means of their large and varied experience to meet difficulties of all descriptions and to surmount them as they arise, who have won the confidence of those who are engaged in the building industry, who know by experience the kind of houses which are required in each particular locality, the manner of laying them out and

building them in the most economical way, so as to obtain that air of distinction and home-like character which is so desirable. Yet these men are seldom consulted, and it has been customary in many of our towns and cities to set up large and costly housing staffs, supervised, in some cases, by men who have not the necessary local knowledge or experience, and whose experiment, often very costly, have to be borne by the already over-burdened taxpayer and ratepayer. It is very much to be desired, and I feel it is a matter of the utmost importance, that the services of architects of first-rate and acknowledged ability should be requisitioned for this work before it is too late, and if some method of co-operation can be devised whereby some of the work can be done by younger men acting in conjunction with those of longer and greater experience it would not only counteract the tendency to monotony but would be productive of that variety of treatment and design which is so essential in large schemes. In this connection I would urge that ex-Service men should receive special consideration wherever their skill and ability are sufficient to warrant their employment. This method of co-operation has been adopted at Manchester, Leeds, Bristol, Birmingham, and elsewhere, and I should like to see it given a trial in other large populous centres.

I must also refer briefly to the other class of building, "Luxury" building is something new, and I doubt if any of us heard much about it until the present year. All building which is not housing is "luxury" building of various grades or categories, and wherever the erection of these so-called "luxury" buildings appears to be likely to cause delay to the housing schemes of any local authority, that authority has power to delay the construction of such "luxury" buildings either wholly or partially, subject, however, to appeal to the tribunal set up by the Ministry of Health. We are all familiar with the way in which these newly acquired powers have been put into operation. We are also familiar with the extreme difficulty of finding anyone with means enough and to spare for building of any sort under the present conditions. Therefore it is not surprising that so many of us are finding it very difficult to employ ourselves and our time advantageously enough to meet the demands which are now being made upon us. I view with very great concern that there is yet another Bill just recently presented to Parliament which is to deal further with the restrictions prohibiting "luxury" buildings, and giving additional power to the Minister of Health to take action in certain cases not covered by the existing law, and I sincerely hope that architects will concern themselves about the matter and see that the powers proposed to be acquired are not such as to further impede the work of the building industry, in the welfare of which are vested our hopes for the future.

There are certain things which I consider it to be my duty to refer to, and I feel that I would be remiss if I omitted to mention the formation of the Architects' and Surveyors' Assistants' Professional Union, the inaugural meeting of which was held at London in April last year, and the fact that this Union has now branches in our large provincial centres, including Newcastle, makes it desirable that some consideration should be given to so important a matter. I have had the privilege and pleasure of addressing the members of the local branch of the Union, and I think they are aware of my opinions with regard to the objects which they have in view, particularly of those interests which are common to their Union and to our own and kindred Associations, namely, the desire for the improved status, efficiency, and training of the professional assistant, their representation on professional bodies, and the encouragement of a feeling of co-operation between the practising architect and his assistant. For these we can have nothing but praise and a desire to assist in every possible way. Then concern about other points, namely, adequate salaries and payment for overtime, the abolition of unpaid assistants and matters of that category, can

safely be left to themselves, with the expression of a hope that the Union will always bear in mind that its members belong to a profession, the successful practice of which is very precarious, and the remuneration not always commensurate with the skill and labour involved.

The subject of architectural competitions is one which has received a great deal of attention in times past, and in this connection it should be borne in mind that it was the unsatisfactory conditions of a competition for a proposed institute to be erected at South Shields, in 1859, which called our Association into being, and it is only right and proper that we should continue to concern ourselves with this important subject. During the past year we have had a plethora of advertisements in the building papers, announcing subjects for architectural competitions, many being for monuments to commemorate those who gave their lives in the war. These were in so many cases followed by the banning notices of the Royal Institute that it seemed as if the time was not far distant when the Royal Institute JOURNAL would have space for little else. Your Council have given the matter a great deal of consideration, feeling that the proceedings were not only undignified but were quite unworthy of a great profession. The short history of these unfortunate affairs is as follows:—The would-be competitor reads the advertisement, deposits his guinea or guineas, as the case may be, and receives the conditions. The promoters of the competition are encouraged by the receipt of so many guineas and by the issue of so many sets of conditions. Then comes the Royal Institute banning notice. . . .

The unattached architects go on their way—perhaps rejoicing. The Royal Institute would-be competitors sit twiddling their thumbs, or engage in some other pastime, until the next competition is announced, with hopes that the conditions may allow them to compete. The result, disappointment for the promoters and everybody, excepting perhaps the unattached architects, who find themselves engaging in a limited competition, confined to their own class, and not in an open competition, as they at first expected. As a Council we thought it might be possible to stir up the Royal Institute and try and show how ridiculous the proceedings were becoming, and forwarded the following resolutions:—

1. "Whether some method could be devised whereby all conditions of competition for public works should be submitted to the Royal Institute before the competition was advertised."

2. "The advertisement in each case to distinctly state that the conditions had been approved by the Royal Institute."

3. "That Members of the Royal Institute who apply for such conditions where this approval does not appear in the advertisement, should be deemed to be guilty of unprofessional conduct."

The reply from the Competitions Committee of the Royal Institute was not considered as very satisfactory. The Royal Institute could do nothing of themselves; they were not the only body concerned. The Society of Architects and other bodies are in separate existence, etc. Some day, if and when these bodies become merged under one head, it might be practicable to carry out some such suggestion. Well, this was not very encouraging. The correspondence is printed in the issue of the Royal Institute JOURNAL, dated March 20th, and but for the letter of Mr. M. Arthur Butler, Secretary of the Society of Architects, which appeared in the following issue, the matter would, I suppose, have been allowed to rest. That gentleman regarded the resolutions as embodying an important question of principle, calling for immediate action, and made suggestions as to how the questions might be solved at once instead of being deferred to the future. As it is we are thankful for small mercies, and we read in a recent issue of the JOURNAL that a joint memorandum has been drawn up for circulation throughout the country, its purpose being to inform promoters of competitions of the course they

must adopt if they wish to secure, without delay, the co-operation of those who are best qualified to provide designs for the buildings they have in view. This is better than nothing, and the fact that the memorandum is signed, not only on behalf of the Royal Institute, but also on behalf of the Society of Architects is a very encouraging sign. . . .

I closed my first address with a few words on faith. With your permission, I should like to do so again—faith in the future of our noble art. It is difficult of attainment: it has to be held tightly when it is attained, especially in times such as these through which we are now passing. I have just been reading the Address of the esteemed President of the Royal Institute, delivered at the inaugural meeting. I see faith running between the lines right through, and, as he rightly observes, without faith there can be no enthusiasm. The one is dependent on the other. May we have both!

The President R.I.B.A. at Birmingham.

The Birmingham Architectural Association held its second general meeting at the Midland Hotel, Birmingham, on the 19th November. The President, Mr. H. T. Buckland F.R.S., occupied the chair, and 31 members were present. The meeting was preceded by a dinner in honour of Mr. John W. Simpson, President R.I.B.A., who was the guest of the Association.

Mr. Simpson said he had come to Birmingham to have an informal talk with Birmingham architects; he did not propose to deliver any set address. He was anxious that a comradeship should exist among architects. There seemed to be a feeling that the London members of the R.I.B.A. were not sufficiently in touch with their provincial brethren: such a feeling was most undesirable, and one which ought to be removed.

Mr. Simpson went on to say that he was here to cheer architects up. The difficulties in the profession at the present time were indeed great, but many architects were doing well, and things generally were improving. There was no cause to become too depressed.

If we plan our buildings well we are standing on the ancient traditions, and our work remains and becomes classic, but the inferior work gradually dies out, just as it did of old. If we follow the spirit of the old masters we shall contribute to art in the practice we all love, and have monuments to our credit that are immortal.

Mr. Simpson asked if any members present had any special grievances to bring up for discussion. He hoped they would treat him as a Parliamentary candidate and heckle him.

Mr. H. T. Buckland read an article which had appeared in the *Birmingham Post*, entitled "Work of the City Housing Department," being an extract of the annual report of the local Housing Director.

Mr. Simpson said he thought some of the statements contained in the report should not be allowed to pass unchallenged, and he thought the Birmingham Architectural Association a most suitable body to take the matter up. The average fees to architects on housing schemes, he asserted, were about 1½ per cent. Housing was a business in which the issues were enormous, and it was apparently not understood by Members of Parliament. The cost of houses was very great, and we were very much behind in their erection, but the Government would not face the problem squarely, especially the question of expenditure. If high rents were insisted upon, the local authorities would have to bear the brunt, and we should have houses with such prohibitive rents that no working man could afford to live in them. Some of the freak methods introduced by the Ministry of Health Architectural Department were not tending to ease matters in the question of houses.

Mr. Buckland, Mr. Bateman, Mr. Nicol, Mr. Savage and Mr. Martin all made reference to the revolution that was taking place in connection with the Form of Contract, and expressed various views on the subject.

Mr. Simpson was of opinion that the action of the Builders' Federation in denouncing the hitherto agreed Form of Contract was by no means an unmixed misfortune. Contracts must be agreed henceforth between builders and employers, and if the latter disregarded the advice of their architects in such a matter, the architects would be free of responsibility and must administer the contract to the best of their ability.

In preliminary proceedings at the meeting included the de-patch of the following telegram to M. Louvet, President of the Société des Architectes diplômés, at Paris:—*Architectes Anglais réunis à Birmingham envoient salutations les plus cordiales à leurs confrères Français avec vœux sincères pour bonne santé de l'éminent président Louvet. Vive la France!*—SIMPSON, President Royal Institute; BUCKLAND, President Birmingham Architectural Association.

MINUTES. III.

At the Third General Meeting (Business) of the Session 1920-21, held Monday, 29th November, 1920, at 8 p.m.—Present: Mr. John W. Simpson, *President*, in the Chair; 24 Fellows (including twelve members of the Council), 19 Associates (including 4 members of the Council), and 5 Licentiates—the Minutes of the Meeting held 15th November were taken as read, and signed as correct.

The Hon. Secretary formally announced the decease of the following members since the last meeting in June:—Josiah Conder, *Associate* 1878, *Fellow* 1884, of Tokyo, Japan; John Johnson, *Associate* 1881; Henry Blackburn, *Associate* 1893; Arthur Patrick Hector Pierce, *Associate* 1897; Robert Smith Dods, *Associate* 1891; Thomas Wilham Aldwinckle, *Fellow* 1887, and his son Thomas Wilson Aldwinckle, *Associate* 1901; Thomas Lennox Watson, *Fellow* 1884, *Retired Fellow* 1917; John Dixon Butler, *Fellow* 1906; Edwin Alfred Rickards, *Fellow* 1906; John Bughtmore Mitchell-Withers, *Associate* 1884, *Fellow* 1911, Past-President of the Sheffield Society of Architects; Hampden Wm Pratt, *Associate* 1881, *Fellow* 1888, Past-President of the Architectural Association; Temple Lushington Moore, *Fellow* 1905. Also of the following Licentiates:—James Richardson, Edmund Burke, F. W. Martin, Robert Arthur Parkin, George Angus Sutherland, Cyril Hamilton Dyer, John Close Williams, John Black Hector, John Henry Wall, James German, James Strong.

On the motion of the Hon. Secretary, it was RESOLVED that the regrets of the Institute for the loss it had sustained by the decease of these members be entered on the Minutes of the Meeting, and that messages of condolence be addressed to their nearest relatives.

The following members attending for the first time since their election were formally admitted by the President—viz.: F. Danby Smith, *Fellow*, and A. D. Bryce and T. O. Thurtle, *Associates*.

The following candidates were elected by show of hands under By-law 9:—

AS FELLOWS (9)

GREEN: THOMAS FRANK, P.A.S.I. [A. 1903].

And the following Licentiates who had passed the qualifying examination:—

ARNOTT: JAMES ALEXANDER, Edinburgh.

BOND: WILFRID, Grantham.

HEWITT: STANLEY GOODISON, Liverpool.

LORD: GEORGE WILFRID, Sudan.

SLATER: WILLIAM FORD, Burslem.

SMITH: WILLIAM CHARLES CLIFFORD, O.B.E.

THOMSON: DAVID, M.B.E.

TWIST: WALTER NORMAN, Birmingham.

AS ASSOCIATES (55).

ASHTON: ARTHUR, P.A.S.I. [S. 1907], St. Anne's-on-Sea

BAIN: VICTOR [S. 1912], Leeds.

BANKS: WILLIAM ARTHUR [S. 1911], Stafford.

BATTY: WILLIAM ARNOLD, M.C. [S. 1910], Leeds.

BLOOMFIELD: FRANK TANSON [*Special War Examination*], Sydney, N.S.W.

BONIFACE: CHARLEY FRANK [S. 1913], Petersfield.

BRACEWELL: ARTHUR [S. 1905], Keshley.

BURFORD: JAMES [S. 1916].

BUTTERWORTH: HAROLD, M.A. [S. 1917], Manchester.

CABLE: PROFESSOR ROBERT WILLIAM [S. 1909], Bombay.

CAMPBELL: DUNCAN ALEXANDER [S. 1919], Liverpool.

CHANTER: HOPACE RAYMOND [S. 1908].

CHARLEWOOD: GEORGE EDWARD [S. 1910], Newcastle-on-Tyne.

CLAYTON: GERALD RUPLRI [S. 1914], Blackburn.

CRITCHLEY: FREDERICK ERNEST [S. 1908].

DAVIES: JOHN PERCIVAL WILKINS [S. 1913], Raipur, India.

ELSTON: JAMES [S. 1910].

FIRTH: JOSEPH PERCY [S. 1904], Wakefield.

GEORGE: BERNARD [S. 1919].

GISBY: ERNEST WILLIAM [S. 1908], Kuala Lumpur.

GOSSLING: HUGO FOLEY [S. 1919].

GREENWELL: CAPTAIN [S. 1907], Sydney, N.S.W.

HAGUE: HORACE VINCENT [S. 1909], Derby.

HARDY: THOS. CHAS. [S. 1915], Ohio, U.S.A.

HIGGS: HAROLD JOHN [S. 1910].

HOOPER: CHARLES OWEN [S. 1909], China.

INGHAM: WALTER [S. 1910], Beverley.

JONES: WILLIAM HAROLD [*Special War Examination*].

JOPLING: ALFRED BRADSHAW BOSTON [S. 1919], Hull.

KEESING: GORDON SAMUEL [S. 1911], Sydney, N.S.W.

KNOIT: ARTHUR JOHN [S. 1909], Bistol.

MCNICOL: JOHN, P.A.S.I. [S. 1907], Stockton-on-Tees.

MAY: PERCY [S. 1905].

MORGAN: HUGH TOWNSEND [S. 1906].

MOSS: DONALD JOHN [S. 1912].

PAIMER: ARTHUR JAMES [S. 1913], New Zealand.

POOL: STANLEY [S. 1907].

REW: NOEL ACKROYD [S. 1906].

RICKARD: STANLEY NOBLE [*Special War Examination*], Sydney, N.S.W.

ROLLO: ROBERT LESLIE [S. 1918], Aberdeen.

SANDERS: THOMAS ANDREW [S. 1919], Southport.

SATCHILL: HUGH GLANVILLE [S. 1919].

SEABROOK: SAMUEL BRIGHTON [S. 1912].

SKINNER: THEODORE ARTHUR [S. 1908], Bistol.

SMITH: WILLIAM JAMES [S. 1920], Glasgow.

SYMINGTON: HERBERT ANDREW [S. 1908], Northburgh.

THOMAS: ARTHUR PHILIP [S. 1910], Bridgend.

THORPE: ALEXANDER [S. 1910].

UNSWORTH: GERALD [S. 1905], Petersfield.

VINTERS: JOHN MACKIE [S. 1920], Glasgow.

WEICH: HERBERT ARCHIBALD [S. 1909], Huddersfield.

WICKS: HERBERT GRAHAM, M.C. [S. 1907], Birmingham.

WILKS: TRENWITH LOVELINE [S. 1910].

WINBOURNE: GOODMAN GEORGE, P.A.S.I. [S. 1915].

WOOD: CECIL WALTER [S. 1903], Painschurch, N.Z.

The Secretary announced that the Council had nominated for election to the Fellowship the Licentiates who had passed the Qualifying Examination and whose names were published in the JOURNAL for the 6th November, pp. 22-23.

The President referred to the motion which stood in his name on the Agenda—viz.: that certain additional provisions* should be embodied as essential conditions in the Regulations for Architectural Competitions—and stated that since the issue of the notice-paper the Northern Architectural Association had asked for an opportunity of submitting to the Council certain considerations which they regarded as of importance in relation to competitions. The President therefore proposed that the motion on the Paper

* These provisions are set out in the notice of the meeting published in the JOURNAL for the 20th November, p. 48.

should be deferred in order that the Competitions Committee might learn the views of the Allied Societies and discuss the matter with them.

The proposition, having been seconded by Mr. Herbert W. Wills [F.], was thereupon put to the Meeting and carried unanimously.

The President proceeded to the next item on the Agenda—viz., "The Chairman, on behalf of the Council, to move that the Revised Scales of Fees payable to Architects and Quantity Surveyors in connection with the State-aided Housing Schemes, as set out in the Ministry of Health's General Housing Memorandum No. 31, be incorporated in the 'Scale of Professional Charges' in substitution for the existing Clause 9."

The President stated that the negotiations which had taken place between the Institute and the Ministry of Health since August 1919 had resulted in a definite agreement regarding fees, and that this was the view of both parties was confirmed by the agreed scales having been embodied in the Ministry's Memorandum No. 31. That morning, however, a letter had been received from the Ministry stating that one or two questions of difficulty had arisen recently with regard to the Scale of Fees for Housing and suggesting that representatives of the Institute should discuss these questions with the Ministry before the Scale was incorporated into the Professional Schedule. The President therefore suggested that it was not advisable to proceed with the motion that evening, but invited the views of the Meeting upon the point.

The letter from the Ministry of Health having been read, Professor S. D. Adshead [F.] supported the President's suggestion, urging that special consideration should be given to the question of fees for superintending the carrying out of housing schemes.

Mr. Sydney Perks, F.S.A. [F.], having at the President's suggestion put to the Chair the question of which he had given notice—viz., "Are the Ministry of Health bound by their Memorandum No. 31 and will they refuse to sanction the remuneration of Architects and Quantity Surveyors at a lower rate than that scale?"—the Secretary replied that he had written to the Ministry asking that question but had not yet received a reply.

The Meeting expressed its acquiescence with the President's proposal that his motion should stand over until the conference with the Ministry had been reported upon.

An informal discussion which ensued at the invitation of the President brought out the many serious difficulties which confronted architects who were engaged, or who by reason of their special qualifications sought to be engaged, on the carrying out of the National Housing Scheme. Members taking part in the discussion included Mr. Sydney Perks [F.], Professor Adshead [F.], Mr. Herbert A. Welch [A.], Mr. Clapham Lander [F.], Mr. G. Leonard Elkington [A.], Mr. Horace Cubitt [A.], Mr. K. Gamble [A.], Mr. Wm. Woodward [F.], Mr. Francis Hooper [F.], Mr. T. Tatham Rees [F.], Mr. T. Lawrence Dale [F.], and Mr. Maurice B. Adams [F.].

The President undertook that the Institute delegates to the conference should be fully instructed on the various points brought before the Meeting that evening in order that they should be discussed with the Ministry.

The proceedings closed at 9.40 p.m.

COMPETITIONS.

Llandudno War Memorial.

As a result of correspondence between the Competitions Committee of the R.I.B.A. and the promoters, the conditions of the above Competition are now in order, and there is no objection to Members and Licentiates taking part.

NOTICES.

Election of Members, 3rd January, 1921.

An election to Fellowship R.I.B.A. of Licentiates who have passed the Qualifying Examination will take place at the Business Meeting of 3rd January, 1921. The names and addresses of candidates (with the names of their proposers) found by the Council to be eligible and qualified for membership according to the Charter and By-laws, and recommended by them for election, are as follows:—

ADAMS: JOHN STANDEN, 8 Montague Road, Richmond Hill, Surrey. Proposed by W. Gillbee Scott, Maurice B. Adams, Herbert W. Wills.

ARMOUR: JOHN, Bridgegate, Irvine, Scotland; Smith-hill, Irvine, Scotland. Proposed by John Watson, James Lockhead, and the Council.

BARKER: ROGER BRADLEY, Town Hall, Wolverhampton; 62 Compton Road, Wolverhampton. Proposed by Stephen Shaw and the Council.

BLAIN: WILLIAM JOHN, 144 St. Vincent Street, Glasgow; 11 Lauderdale Avenue, Newlands, Glasgow. Proposed by John Watson, Wm. B. Whitie, and David Salmond.

BRUNTON: FREDERICK SEPTIMUS, Electrical Federation Offices, Holborn, W.C., 39 Twickenham Road, Teddington. Proposed by C. Stanley Peach, John Clarkson, George Lethbridge.

CAVE: AYLWIN OSBORN, "Treyford," Letchworth. Proposed by S. B. Russell, Barry Parker, Courtenay M. Crickmer.

CHURCH: ARTHUR HAROLD, J.P., 16 and 17 Devon-hire Square, Bishopsgate, E.C.2; Inglenook, Wavertree Road, Woodford, E.18. Proposed by George F. Withers, Francis J. Sturdy, Sir Reginald Blomfield, R.A.

CRANE: LIONEL FRANCIS, 94 Church Street, Kensington, W.8. Proposed by Sir Reginald Blomfield, R.A., Andrew N. Prentice, Horace Farquharson.

DANIEL: THOMAS BRAMMALL, Blackwall Yard, E.14; Ventnor, Chislehurst, Kent. Proposed by W. Courtenay Le Maitre, A. E. Richardson, C. Lovett Gill.

DOLMAN: WILLIAM LEDSHAM, Crescent Road, Windermere; Bleak House, Windermere. Proposed by W. H. Ward, Raymond Unwin, A. N. W. Hodgson.

DURLACHER: ALEXANDER PERCY, A.M.I.C.E., F.S.I., 15 New Bridge Street, Ludgate Circus, E.C.4; 67 Parliament Hill Mansions, N.W.5. Proposed by Lieut.-Col. E. J. Bridges, O.B.E., M. E. Collins, E. Jeaffreson Jackson.

DURST: AUSTIN, M.A. (Cantab.), 3 Raymond Buildings, Gryn's Inn, W.C.; Dent House, Bushey Grove Road, Watford. Proposed by William A. Pite, Edward Maufe, Leslie T. Moore.

ENGLISH: CHARLES WILLIAM, 36 Mecklenburgh Square, W.C.1. Proposed by Alfred W. S. Cross, Sir Reginald Blomfield, R.A., Sir Edwin Lutyens, R.A.

EWEN: ARTHUR JOHN CLIFFORD, 24 Coleman Street, E.C.2; 8 Champion Grove, Denmark Hill, S.E.5. Proposed by Frederick Wheeler, A. E. Richardson, C. Stanley Peach.

GALE: ERNEST SEWELL, 15 New Bridge Street, E.C.; 101 Sutton Court, Chiswick, W.4. Proposed by Sir Aston Webb, K.C.V.O., P.R.A., W. Howard Seth-Smith, Francis Hooper.

GARLICK: FRANCIS JOHN, 21 Lombard Street, E.C.3; 40 Windsor Road, Church End, Finchley, N.3. Proposed by E. Guy Dawber, H. Alex. Pelly, Henry Tanner.

GASKELL: PETER, J.P., Albert Chambers, 11 Carr Lane, Hull; Inglewood, Newland Park, Hull. Proposed by Sir W. Alfred Gelder, L. Kitchen, John Bilson.

- GRUNDY: SAMUEL, JNR., Central Buildings, Ulverston; 2 Richmond Terrace, Ulverston. Proposed by Stephen Shaw and the Council.
- HALL: JOSEPH LOCKWOOD, Public Works Department, Cape Town, S. Africa. Proposed by Arthur H. Reid, Franklin K. Kendall, John Parker.
- HENDERSON: HAROLD EDGAR, P.O. Box 80, Nairobi, Kenya Colony, British East Africa. Proposed by Sydney D. Kitson, Walter H. Birtley, and the Council.
- HIGNETT: CECIL HORACE, Nilton, Letchworth, Herts. Proposed by Barry Parker, H. C. Lander, Raymond C. Unwin.
- HOLTOM: EDWARD GIBBS, Holt, Norfolk. Proposed by James A. Swan, A. J. Healey, Arthur Harrison.
- HOUSTON: JOHN ALFRED TAYLOR, Office of Public Works, City Chambers, Glasgow; 35 Blythswood Drive, Glasgow. Proposed by Wm. B. Whitie, James Lochhead, W. S. A. Gordon.
- HUXLEY: WILLIAM SHERRIN, M.C., Kuala Lumpur, Federated Malay States. Proposed by C. G. Boucher, Sydney Perks, Henry T. Gordon.
- JERDAN: JOHN, 12 Castle Street, Edinburgh; 125A Princes Street, Edinburgh. Proposed by James B. Dunn, Sir Aston Webb, K.C.V.O., P.R.A., John Wilson.
- JONES: HUGH GRIFFITH, 410 Drummond Building, Corner Peel and St. Catherine, Montreal, Canada. Proposed by Geo. A. Ross, Percy E. Nobbs, Philip J. Turner.
- JONES: RONALD POTTER, M.A. (Oxon.), 7 Stone Buildings, Lincoln's Inn, W.C.2; 13 Houghton Street, Kensington, W.8. Proposed by Sir Reginald Blomfield, R.A., F. M. Simpson, Arthur Stratton.
- LONGDEN: REGINALD THIELWALL, York Chambers, Stoke-on-Trent; High Barns, Ladydile, Leek, Staffs. Proposed by John P. Osborne, W. Alex. Harvey, Henry T. Sindy.
- LUNAN: THOMAS MELVILLE, 209 St. Vincent Street, Glasgow; 49 Belmont Gardens, Glasgow. Proposed by H. E. Clifford, John Watson, James Miller.
- MAGGS: LEONARD, Shire Hall, Nottingham; Ridehall-on-Trent, Nottingham. Proposed by H. Garnham Watkins, Robert Evans, Ernest R. Sutton.
- MALCOLM: ALEXANDER NISBET, 76 High Street, Falkirk; Arthurliden, Polmont, Stirlingshire. Proposed by Wm. B. Whitie, Alexander N. Paterson, John Watson.
- MILLAR: THOMAS ANDREW, 9 Blythswood Square, Glasgow; 16 Kew Terrace, Kelvinside, Glasgow. Proposed by John Keppie, James Miller, Wm. B. Whitie.
- NICHOLLS: WILLIAM HENRY, Consulting Architect to the Government of Madras, Madras, India. Proposed by Sir Edwin L. Lutyens, R.A., James Ransome, John Begg.
- NORMAN: GEOFFREY, 8 Clifford's Inn, Temple Bar, E.C.4; 55 Eccleston Square, S.W.1. Proposed by John Hunt, Henry M. Fletcher, Henry W. Finch.
- NORTON: CHARLES HARROLD, 14 Bedford Row, W.C.1; 5 Holly Hill, Hampstead, N.W. Proposed by S. D. Adshead, Thomas E. Colclough, John W. Simpson.
- PATERSON: GEORGE ANDREW, 16 Blythswood Square, Glasgow; Terpersie, Helensburgh. Proposed by John Keppie, Alexander N. Paterson, Wm. B. Whitie.
- PEARSON: LIONEL GODFREY, 28 Woburn Place, Russell Square, W.C.1; 28 Church Row, Hampstead, N.W. Proposed by F. M. Simpson, H. Percy Adams, Theodore Fyfe.
- PHIPPS: PAUL, B.A., 97 Jermyn Street, S.W.1; 5 Bolton Court, Chelsea, S.W.3. Proposed by Sir Edwin Lutyens, R.A., Herbert Baker, Oswald P. Milne.
- PORTER: BERNARD ARTHUR, County Buildings, 147 Corporation Street, Birmingham; 23, Handsworth Wood Road, Birmingham. Proposed by Herbert T. Buckland, Rupert Savage, Arthur Harrison.
- PRESTON: ARCHIBALD FREDERICK, 50 Moorgate Street, E.C.2; 86 Warren Road, Leyton, E.10. Proposed by James S. Gibson, Alfred W. S. Cross, George Hubbard.
- SNELL: JOHN SAXON, 26 Great James Street, Bedford Row, W.C.1. Proposed by A. Saxon Snell, Edwin T. Hall, H. Percy Adams.
- SPOOR: STANLEY MILES, 26 Great James Street, Bedford Row, W.C.1; 49 Oxford Mansions, W.1. Proposed by A. Saxon Snell, Sir Henry Tanner, Brook Kitchen.
- STEEL: JOHN, Royal Buildings, Mun Street, Wishaw; The Chalet, Wishaw. Proposed by James Lochhead, John Watson, David Salmund.
- STEWART: JOHN, 16 Blythswood Square, Glasgow; Huntingdon, Bridge of Allan, N.B. Proposed by Alexander N. Paterson, John Keppie, Wm. B. Whitie.
- STILL: JOHN EDWARD, 50 Threadneedle Street, E.C.2; "Trewithian," Downs Court Road, Purley, Surrey. Proposed by George Hubbard, H. D. Seafles-Wood, F. T. W. Goldsmith.
- SWAN: JAMES HENRY, 8 Clifford's Inn, E.C.4; Greystead, Amersham Common, Bucks. Proposed by Alfred Cox, Edgar S. Underwood, Henry W. Finch.
- THOMPSON: ALBERT JOHN, c/o The Garden Cities Trust, 80 Adderley Street, Cape Town, S. Africa. Proposed by Raymond Unwin, Barry Parker, Major Harry Barnes, M.P.
- WEIR: WILLIAM MAY, 17 Victoria Street, Westminster, S.W.1; 41 Hillfield Road, West Hampstead, N.W. Proposed by George Hubbard, Wm. Woodward, Gilbert H. Lovegrove.
- WILLIAMS: RICHARD JOHN, Parkstile Chambers, Market Street, Kettering; "Ivel," Glebe Avenue, Kettering. Proposed by J. Alfred Gatch, Sidney F. Harris, J. W. Fisher.
- WILSON: THOMAS MILLWOOD, 4 Staple Inn, Holborn, W.C.1; 46 Hampstead Way, Golders Green, N.W.4. Proposed by E. Guy Dawber, Harry Redfern, Arthur Stratton.

THE FOURTH GENERAL MEETING (ORDINARY)

of the Session 1920-21 will be held MONDAY, 13th DECEMBER, 1920, at 8 p.m., for the following purposes:—

To read the Minutes of the General Meeting held 29th November, 1920; formally to admit members attending for the first time since their election; to announce the names of candidates recommended for admission.

To read a Paper on

SARACENIC ARCHITECTURE IN EGYPT AND PALESTINE.

By MARTIN S. BRIGGS [F.R.S.]

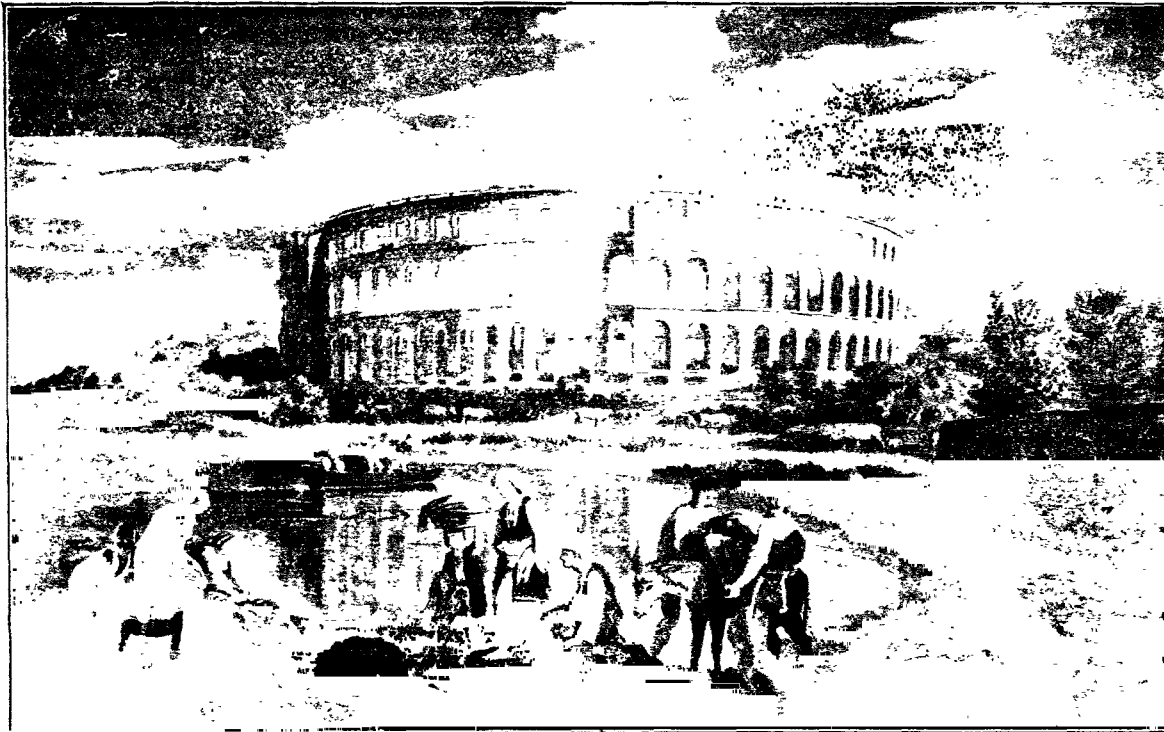
An EXTRA-ORDINARY GENERAL MEETING will be held THURSDAY, 16th DECEMBER, 1920, at 8 p.m., for the reading of a Paper on

THE IMPROVEMENT OF LONDON: THE SLUMS OF INNER LONDON AND THE HOUSING PROBLEM.

By THOMAS E. COLCLUGH, Past President R.I.B.A.

* Wanted three clerks thoroughly familiar with and competent to check a costing system kept by the contractors for a housing scheme near London. Ex-service men preferred. The appointments will be temporary only, and the salaries proposed are £350 per annum for the senior costing clerk and £250 to £300 for the two juniors.—Address Box 2911, c/o Secretary R.I.B.A., 9, Conduit Street, W.

PARTNERSHIP wanted by recently demobilised officer. Experienced Architect and Surveyor; 10 years general practice (in partnership) before the war.—Address Box 2711, c/o Secretary R.I.B.A., 9, Conduit Street, W.



AMPHITHEATRE, POLA.
From the Original Water-colour Drawing by James Stuart (Stuart & Revett) — R.I.B.A. Collection.

THE LIBRARY AND COLLECTIONS OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

By the LIBRARIAN, RUDOLF DIRCKS.

(Continued from page 64.)

As we have seen, most of the architects, both Italian and French, of the Renaissance visited Rome and made drawings from the ancient buildings: but it is to Antoine Desgodetz that the credit of the publication of the most detailed scale drawings of ancient Rome is due. In his *Les Edifices Antiques de Rome*, published in Paris in 1682 (when the author was only twenty-nine), inaccurate as Piranesi's and later observations proved many of the drawings to be, we have the precursor of the great architectural literature on classic architecture which in the following century began to appear in England. The Library copy of the first edition of Desgodetz's book came originally from the library of James Stuart ("Athenian Stuart") and contains marginal notes and emendations in French in his handwriting. The Library also contains a folio volume in manuscript, consisting of 313 pages, entitled *Cours de l'Architecture, dicté par M. Desgodetz, Architecte du Roi*, being no doubt the lectures which he delivered as Professor of the French Royal Academy of Architecture, a position which he occupied from 1719 to 1728. The manuscript was presented to Professor Donaldson in 1842 by M. Guenepin, a French architect of some note in the early part of the nineteenth century.

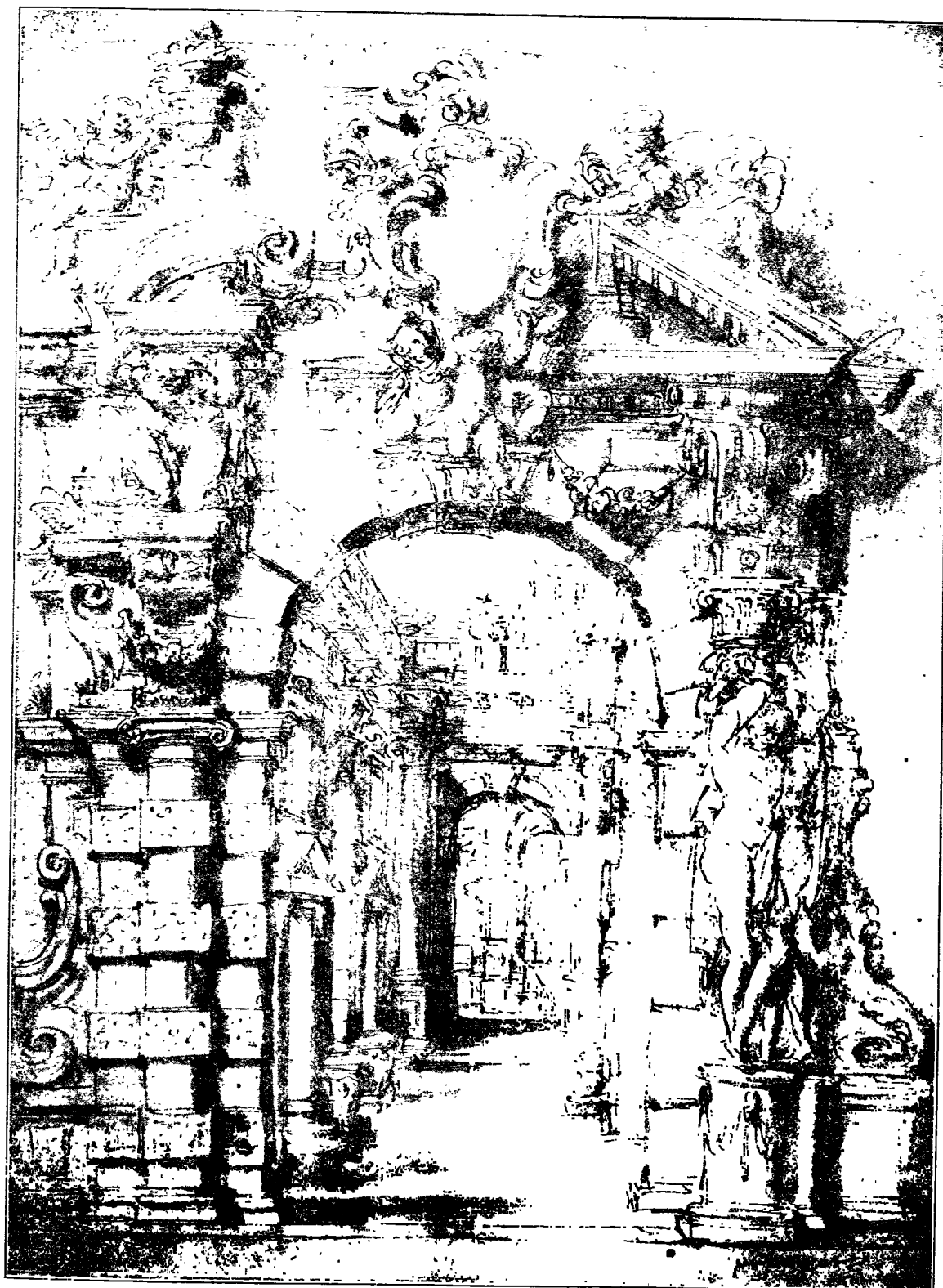
What Desgodetz did for Rome, a later Professor of the French Academy, Julien David Le Roy, did for Greece in his *Les Ruines des plus beaux Monuments de la Grèce*, published in Paris in 1758. And to continue in the same line of investigation of French research in regard to ancient architecture, if we take a leap of half a century we may thank Nelson's victory over the French fleet in Aboukir Bay, which held Napoleon and his army prisoners in Egypt, for the splendid series of twenty-three volumes—13 volumes of plates and 10 volumes of text—*La Description de l'Égypte*, published by order of the Government, 1809–1822, the result of observation and research during the time that Napoleon and his army were detained in Egypt. It may have been in a spirit of emulation that later induced King

Frederick William the Fourth of Prussia to instruct Lepsius in 1842-45 to undertake an equally monumental work on Egypt, *Denkmäler aus Aegypten und Aethiopien*, published in Berlin between the years 1849-59. As I have already said, the King presented the Institute copy. The sphere of French investigation was extended by L. F. Cassas to Syria by the publication in 1799 of his *Voyage pittoresque de la Syrie, Phénicie, Palestine et Basse Egypte*, which was supplemented at a later period by the Comte de Vogüé in his *Syrie Centrale*, published in 1865, and by Flandin and Coste, Texier, Perrot and Chipiez, and other authors.

The Library is well stored with the French works published during the nineteenth century. As I have already mentioned, one of the first gifts to the Library was a series of the works of Percier and Fontaine, the architects most typical of the style of the First Empire. Sauvageot, Rouyer and Darcet, Texier, Ramée, Chapay, Revoil, Choisy, Viollet-le-Duc, Bary, Palustre and many other distinguished authors are all represented. There are many links between French architects and authors and the Institute collection, but I shall confine myself to mentioning one of I have already spoken of Garnier's presentations. This is connected with Charles Félix Marie Texier, a writer familiar to all students of the architecture of Asia Minor for his archaeological and architectural discoveries, delineated in three folio volumes (1836-49) *Description de l'Asie Mineure*, for the publication of which the Chamber of Deputies voted the sum of 100,000 francs. The Chamber also provided funds for the publication in 1842-52 of a later work, *L'Arménie, la Perse et la Mésopotamie*—two folio volumes. His last work, *Byzantine Architecture*, completed in collaboration with an English architect and archaeologist, R. P. Pullan, was published simultaneously in English and French in 1864. During his researches in the East Texier made a large number of drawings, and collected a great deal of information that has not been published. In 1867, the year in which he received the Royal Gold Medal of the Institute, he presented to the Library much of this unpublished matter, contained in five bulky folio volumes of drawings, and two volumes of manuscript. Four of the volumes of drawings contain plans, elevations, sections and details of Santa Sophia and other mosques and buildings at Constantinople, as well as draughtsman's notes, general views, either in water-colour or pencil, and sketches of Turkish types, illustrating the manners and customs of the people, and incidents, such as a man swallowing a sword or a man being hanged. The fifth volume of drawings takes us farther East, to Asiatic Turkey, to Persia and Mesopotamia. The manuscripts comprise miscellaneous matter, of which probably the most important are the pages devoted to Constantinople and archaeological descriptions of districts in Asia Minor. The drawings are known to most authorities on the architecture of Constantinople.

With Texier I shall turn from French to English books, but before doing so I should like to remind students of the scholarly restorations by the *anciens personnares* of the French Academy at Rome, who, in collaboration with distinguished archaeologists, were responsible for the series of volumes dealing with Olympia, Epidaurus and Pergamon.

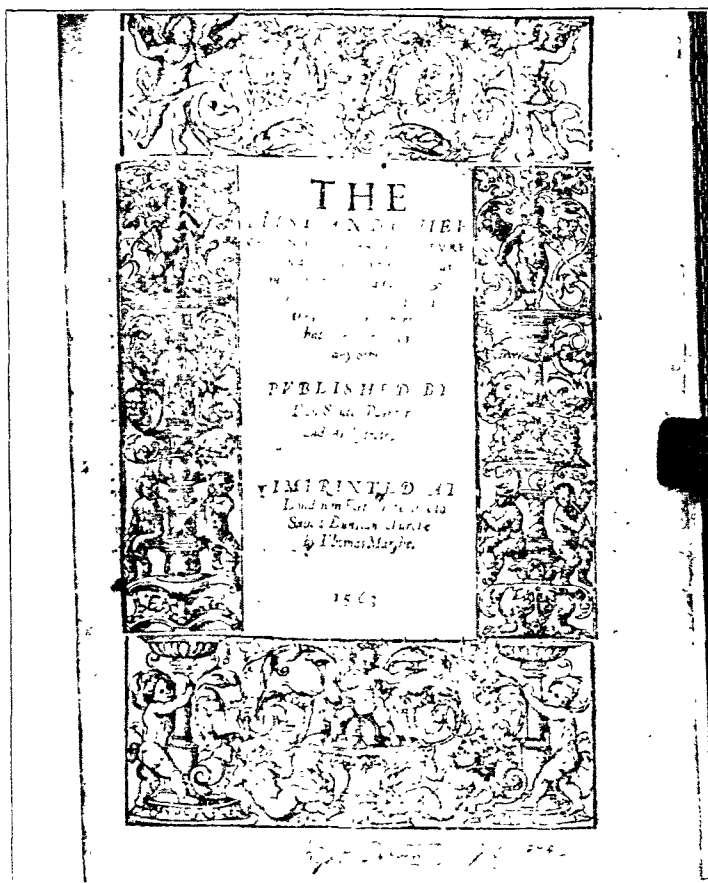
When we turn to England, after having glanced at the publications of Italy and France, we do not at first find the same richness and abundance. Although the Renaissance found its earliest expression in Italy, the movement no doubt expressed a universal spirit of reaction, of gradual growth, which followed the Middle Ages. But the vitality of Italy was contagious, and her influence spread rapidly, after the invention of printing, partly by the means of printed books, and partly by English travellers in Italy and Italian artists who came to this country in the sixteenth century. It may, perhaps, be assumed that the Institute Library contains a representative collection of English architectural authors; but, as has been indicated, English architects and students were not entirely dependent upon native authors for their instruction. The books of Italian and French authors were sufficiently familiar either in the original or in translation. In Italy and France we have seen that early authoritative works were by notable architects. This was not quite the same case in England. It is doubtful whether John Shute was an architect, Gerbier was a diplomat and many other things, and an architect rather by accident than by design; Sir Henry Wotton was a British ambassador at the court of Venice and the author of



From a Signed Drawing by Pierre Puget (1662-91).
(R.I.B.A. Library: Sir James Drummond Stewart's Collection.)

the phrase "peregre missus ad mentiendum Reipublicæ causa," but he was not an architect. "For I am but a gatherer," he said, "and disposer of other men's stuff at my best value: John Evelyn, the diarist, was responsible for a translation, giving "withall the marrow and very substance" of Fréart de Chambray's *Parallèle de l'Architecture*, published in 1664 (this edition is in the Library), and Wm. Laybourn translated Vincenzo Scamozzi's *Dell' Idea della Architettura Univerale* (1700), but neither was an architect. The Library contains a very rare book, the first and only edition of, so far as is known, the first book on architecture published in English, *The First and Chief Groundes of Architecture*, by John Shute, a folio volume published in London in 1563. Shute spent two or three years in Italy, and acknow-

edges his indebtedness to Vitruvius, Serlio, and Serlio's pupil, the Frenchman Philander, who published an edition of Vitruvius with annotations at Rome, in 1544, Paris in 1545, Lyons in 1552, any of which might have been consulted by Shute. It is even within the bounds of possibility that he may have met Philander in Italy, but Serlio was probably dead before the time of his visit, the date of which is uncertain. I reproduce on the screen the title page of this very rare book, and one of the engravings, which suggest Teutonic rather than Latin influence. We know, therefore, to a certain extent, the Italian writers with whom the first English author on architecture was familiar. But we are able to gather more complete information concerning the influence of Italian and French literature from the works belonging to the library of a greater man. Inigo Jones visited Italy on two occasions. The date of his first visit is not determined, but it was before 1606: he states in the introduction to his *Stoneheng Restored* that it was in his younger years.



Title-page (Reduct.) of John Shute's *First and Chief Groundes of Architecture* (1563). R.I.B.A. Collection

The time of his second visit is determined by his marginal notes in the well-known copy of *Palladio* in Worcester College Library. It was in the years 1613 and 1614. Inigo Jones was too great a man to be a typical man, but there is no reason to suppose that the books in his library were exceptional possessions for a cultivated and travelled man of his time. I have already spoken of his copy of Serlio, which is now in the possession of the Institute. I am indebted to the courtesy of Mr. C. H. Wilkinson, the librarian of Worcester College Library, Oxford, for a list of books preserved in that library which contain Inigo Jones's autograph. They include the 1601 copy of *Palladio*, to which I have already referred (the famous copy with MS. annotations and drawings); De l'Orme's *Le premier tome de l'Architecture*, 1567 edition; Vasari's *Le Vite de più eccellenti Pittori, Scultori e Architetto* (Florence, 1568); F. Leandro Alberti's *Descrittione di Tutta Italia* (Venice, 1588);

V. Scamozzi's *L'Idea della Architettura Universale* (Venice, 1615); Torello Sarayna's *De Origine et Amplitudine Civitatis Veronæ* (Verona, 1540); Summonte's *Historia della Città e Regno di Napoli* (2 vols., Naples, 1601), *De Rebus Praedire Gestis a Sixto Pon. Mar* (Rome, 1588), and *Le Cose Maravigliose dell'Alma Città di Roma* (Venice, 1588)—the last named containing a scrap of writing which Mr. Wilkinson ascribes to Jones.



Reproduced from a Facsimile of Inigo Jones's Sketch Book.—(R.I.B.A. Collection.)

Inigo Jones was the author of only one published work, *The Most notable Antiquity of Great Britain, vulgarly called Stone-Heng, on Salisbury Plain, restored*, which was not published until after his death by John Webb. The Library contains a copy of the 1725 edition. In this remarkable treatise Inigo Jones arrives at the conclusion that "this antient and stupendous pile" was originally a Roman temple, built after the Tuscan order.

In the drawings of the Burlington-Devonshire collection we are brought into closer touch with

Jones. There are some seventy or eighty drawings, either by him or reasonably attributed to him. The Library also contains a facsimile copy of a sketch-book which Jones used in Italy during his second visit, in 1614, containing on the first page the inscription "Roma.—Altro diletto che Imparar non trovio.—Inigo Jones 1614." The Duke of Devonshire was responsible for the facsimile of which only 100 copies were produced in 1832. The Institute copy was presented by the Duke to Decimus Burton in 1836. The sketches, with one exception, are entirely devoted to figure and anatomical studies and are drawn with Jones's characteristic freedom. We have also most of the original drawings which Henry Flitcroft made for Wm. Kent's *Designs of Inigo Jones*, published at the expense of Lord Burlington in 1727, a volume which also includes designs by Kent and Lord Burlington.

Sir Balthazar Gerbier's two books—*A Brief Discourse concerning the Three Chief Principles of Magnificent Buildings* (1662) and *Counsel and Advice to all Builders* (1663)—throw some light on the practice of architecture in the time of Sir Christopher Wren—little duodecimo volumes which contain almost as many pages of dedication as there are of text. In the second book I have mentioned there are no less than forty—the first addressed to "The Queen Mother" and the last to "The Courteous Reader." *Een Constich Boeck van de vijf Columnen van Architecture*, by Hans Bloem, fo. Amsterdam, 1598 (the plates were reproduced in an English version in 1660), possesses some interest on account of association, because it was discovered above the ceiling joists in an attic at Wotton House, the family seat of the Evelyns—it was at Wotton where John Evelyn was born and buried. While speaking of these rare early editions I should like to mention two which, although not bearing on architecture, are not without architectural interest: these are William Lambarde's *Perambulation of Kent*, the earliest of county histories, and John Stow's *Survey of London*, of which the Library contains, respectively, the 1576 and 1603 editions.

In the latter half of the seventeenth century Dugdale published his *Monasticon Anglicanum* (1655), containing Hollar's engravings, and David Loggan his engravings contained in *Oxonia Illustrata* (1675) and *Cantabrigia Illustrata* (1676–1670) (both copies are in the Library). These books are not only interesting as records or for their engravings: but also because they were the precursors of the considerable volume of illustrated literature on our national buildings which appeared in the following century and later, and which is continually being added to. Early in the eighteenth century (1708) we have Knyff and Kip's views of great country seats, and the Library also contains James Beeverell's *Les Delices de la Grande Bretagne et de l'Irlande*, published in duodecimo at Leyden in eight volumes, containing 241 plates, as well as later works of a similar character such as Britton and Brayley's *Beauties of England and Wales* 1801–18, and Neale's *Noblemen and Gentlemen's Houses of Great Britain* 1824–9, etc.

We have numerous such works, usually remarkable for their engravings, dealing in a picturesque fashion with the buildings of other countries, of which an excellent example is Jacques Le Roy's *Castella et Prætoria Nobilium Brabantie*, a folio volume published at Amsterdam in 1696, with engravings by Weustenans Hollar, Adam Perelle, Franz Ertinger, Jacobus Harrewyn and other notable engravers of the seventeenth century.

The Institute is indebted to Mr. Laurence Weaver (now Sir Lawrence Weaver) for two interesting contributions to the collection,—the interleaved heirloom copy of the *Parentalia*, which remained in the possession of Sir Christopher Wren's family until 1911, when it was purchased by a generous group of subscribers from Mrs. Pigott, since dead, the last surviving direct descendant of Wren; and for a copy of the third edition of Elyot's *The Boke named The Governour*, the 1546 and third edition, which bears on the title page the autographs of Christopher Wren, Dean of Windsor, Sir Christopher Wren's father, and of Sir Christopher Wren himself. The interleaved copy of the *Parentalia* contains a large number of inserted engravings, in addition to the ten engravings published in the original edition, as well as numerous letters and documents in manuscript, and a few original drawings which show Wren's interest in physical and natural science. I give on the screen the copy of an original letter in the *Parentalia*

addressed by Wren to his son, who was travelling abroad at the time—a rather dry, gossipy letter. Independently of the *Parentalia* the Institute possesses another original letter of Wren, dated 1st December 1716, addressed to Mr. Vanbrugh (later Sir John Vanbrugh), who at the time was one of the Commissioners of Greenwich Hospital. In this letter Wren accounts for his non-attendance at a meeting of the Commission and makes suggestions with regard to matters connected with the Hospital. There is also in the Institute a drawing of a section of the dome of Greenwich Hospital, which Professor Donaldson attributed to Wren.

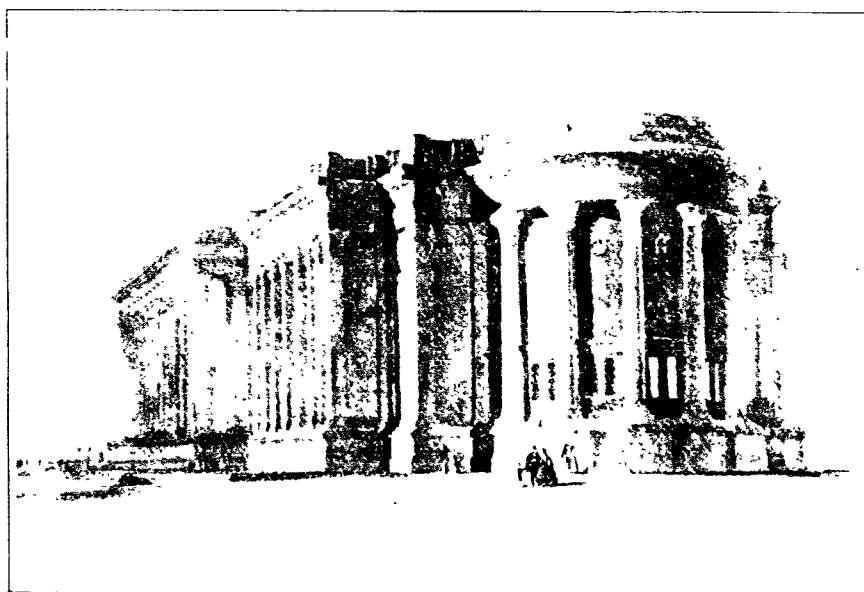
The eighteenth century was prolific in the publication of architectural books, and, so far as Classic architecture is concerned, they were designed on a scale and written with the authority of independent research that hitherto had been unknown in English architectural literature. In regard to national architecture there is the *Vitruvius Britannicus* of Colin Campbell, and those who followed him in this work,—Woolfe and Gandon, G. Richardson and P. F. Robinson,—with scale drawings of plans, sections and elevations, taking the place of picturesque or topographical views. Battye Langley's numerous books, probably the most consulted of their time, belong to neither of these categories, and were misleading in many respects. There are also a number of books by architects illustrating their own designs (of which Rowlin's *Familien Architecture* is a type), interesting expressions, for the most part of the style of the latter half of the eighteenth century. The publications of classic work were largely due to the influence of the Society of Dilettanti. The Society was founded in 1734 by "some Gentlemen who had travelled in Italy, desirous of encouraging *at home* a taste for those objects which had contributed so much to their pleasure abroad." The first book published under the auspices of the Society was the first volume of *The Antiquities of Ionia* in 1769, which developed into four volumes during this and the succeeding century; later works were *The Unedited Antiquities of Attica* (1833), and Penrose's *Investigation of the Principles of Athenian Architecture* (1851). It should, however, be remembered that prior to the publication of the *Ionian Antiquities* three members of the Society had already published independently most important works: Robert Wood's *Ruins of Palmyra* (of which we have the original drawings, no doubt the work of J. B. Barra, who accompanied Wood to the East as his draughtsman in 1753 and *Ruins of Babel* in 1757, and the first volume of Stuart and Revett's *Antiquities of Athens* in 1762. In 1912 the Society of Dilettanti presented to the Institute a set of unpublished plates engraved between 1820 and 1840 and many original drawings made by the members of the Second Ionian Mission sent out by the Society in 1811. The plates were subsequently published in a folio volume under the editorship of Professor Bethaby, and form Vol. V. of the *Antiquities of Ionian* series. The collection presented by the Society also includes earlier drawings made by James Stuart and others for the Society's publications which I have mentioned. In the consideration of the publications of the eighteenth century the influence of Lord Burlington—Richard Boyle, the third Earl of Burlington—to whom I have so often referred, should also be taken into account. He brought Leonni from Italy to undertake the translations of Alberti and Palladio, and, realising from Palladio's description of Ancient Rome that he had made drawings of the classic buildings, went to Italy on a voyage of discovery, and not only found the drawings of the Roman Baths, but also drawings of Palladio's own buildings, which he brought back to England, and which now form part of the Burlington-Devonshire collection. I have already referred to Lord Burlington's publication of a selection of the drawings of the Roman Baths.

Another interesting possession of the period are the lectures, in manuscript, delivered at the Royal Academy in 1768 by Thomas Sandby, the first Professor of Architecture of that Institution.

The name of Willey Reveley is not perhaps so familiar to students as the other names I have mentioned, although he was a man of parts and edited the third volume of *The Antiquities of Athens* (1794), in which he replies with some bitterness to criticisms of Greek Architecture which Sir William Chambers had written in his work on Civil Architecture. The Library possesses Reveley's manuscript notes and criticisms on the architecture of Italy, including the cities or towns of Rome, Florence, Milan,

Verona and Pisa, and a diary of a tour in Greece and Egypt, whether he accompanied Sir Richard Worsley as his draughtsman and architect. He was abroad during the years 1785 (or 1784)–1789. In the following century we have the diaries (contained in 16 pocket-books) of J. L. Wolfe, who accompanied Sir Charles Barry to Italy and Sicily in 1820, containing careful descriptions of the buildings seen on the way, and numerous delicate sketches, made either by a quill pen (the pen still remains in one of the books) or in pencil. We also have later the diary of Sir Charles Barry, containing notes and quick pencil sketches of a Rhine holiday taken in the autumn of 1842, depicting the Rhine Castles and details of buildings at Nuremberg and other places. The original manuscript of Gwilt's *Encyclopædia of Architecture* (1842), has also recently been added to the Library.

Before leaving these original manuscripts, I should like to refer for a moment to another type of document, of considerable historic interest. This consists of various books of accounts connected with Greenwich Hospital, the Horse Guards and Somerset House. The oldest of these, relating to Greenwich Hospital, include the Contract Prices for Building the Hospital and other documents (there are thirty altogether) associated with its erection in 1696.



From a Water-colour Drawing, of St. George's Hall, Liverpool, by the Architect, H. L. Ehnes (R.I.B.A. Collection.)

There are also three books of accounts, described by Wyatt Papworth as "Manuscript Ledgers" connected with the building of the Horse Guards (begun in 1750) and Somerset House (1776) which are instructive as to the course of erection of these buildings, the method of carrying on the works, the prices paid for works done by "measure and value," and the names of the tradespeople employed, covering the period from 1776 to 1795. They contain not only the accounts of the mason, bricklayers, etc., but also of the artists, Sir Joshua Reynolds, Cipriani, Sir Benjamin West and others—which recall the fact that in the early days of the Royal Academy it was housed at Somerset House.

The publication of the early volumes of the Society of Dilettanti which I have already mentioned preceded the neo-Classical revival in England, and indicated the direction to which architectural thought was turning. We have, amongst other original drawings of this period, a water-colour drawing of one of the most celebrated buildings, St. George's Hall, Liverpool, by the architect, H. L. Ehnes, which I reproduce on the screen. Although there was an architectural break in the classic revival, its influence was never wholly dissipated: the tradition was continued in the classic studies of Cockerell,

Pennethorne and Penrose, and by architects and archaeologists in England, Germany and France. Professor Richardson in his *Monumental Classic Architecture in Great Britain during the Eighteenth and Nineteenth Centuries* has quickened interest in the architectural work of the latter half of the eighteenth century and first half of the nineteenth.

As the Institute was founded at the time when the Gothic revival was in the air, it would be surprising if the Library were not fully equipped with the literature that preceded and grew with the movement. Britton's *Architectural Antiquities of Great Britain*, and his *Cathedral Antiquities of England*, Winkles' books of Cathedrals, both in England and France, the various books on mediæval art and ornament by Augustus Charles Pugin and his son Augustus Welby Pugin, the illustrations published contemporaneously by the Brandons, and by J. K. Colling, Turner and Parker's *Domestic Architecture of the Middle Ages*, and Dollman and Jobbin's *Analysis of the Ancient Domestic Architecture in Great Britain*, the first *Discriminating History of Gothic Architecture* by T. M. Rickman—first published in 1817, and followed and improved by numerous subsequent editions—and the books of Bloxam, Parker, Paley and Sharpe are the principal works which go to make up the early literature of Gothic architecture. The collection includes many original drawings of these, including some examples of the work of Augustus Welby Pugin, and a complete set of the original drawings which J. K. Colling made for his *Gothic Details* and *Gothic Ornaments*. Since Mr. Townsend read his Paper on the Institute drawings the collection has been increased by considerable collections of the works of Wm. Burges, Norman Shaw, and Wm. Butterfield. Between the years 1840–50 there appeared concurrently the collections of lithographic plates of English domestic architecture from the drawings of C. J. Richardson and John Nash, which revived interest in the quality of early Renaissance architecture. Some forty years later, in 1894, Mr. J. A. Gutch published his well-known work, in two folio volumes, *Architecture of the Renaissance in England*, which was followed in 1901 by Belcher and Macartney's *Later Renaissance Architecture in England*, and again, later, in 1911, by Garner and Stratton's *Domestic Architecture of England during the Tudor Period*. The written history of the times covered by these works is developed in Sir Reginald Blomfield's exhaustive *History of Renaissance Architecture in England, 1500–1800*, and by Mr. Gutch in *The Growth of the English House* (1909), and in other works.

With regard to the works of contemporary authors, the Literature Committee, within the means at its disposal, endeavours to keep the Library up to date. In recent years a considerable collection of works on colour decoration, stained glass, sculpture, heraldry and furniture, has been formed, as well as of later scientific works and books devoted to special types of building. Contemporary histories of architecture to-day provide a modern student, in a condensed form, with the results of later and more accurate research than was available to the older writers.

In a bird's-eye view much—very much—that is interesting is lost, and I, who know the Library well, am conscious of many omissions. But I hope, at any rate, that you may have gathered from what I have said that in the contents of the Library members of the Institute rejoice in a precious heritage.

DISCUSSION ON THE FOREGOING PAPER.

MR. WALTER CAVE, *Vice-President*, in the Chair.

Dr. A. E. COWLEY (Bodley's Librarian), rising at the invitation of the Chairman, thanked the Council for giving him the opportunity of hearing this deeply interesting Paper. As one Librarian to another, he also thanked Mr. Dircks very heartily on his own behalf for reading the Paper. It was always interesting for one Librarian to hear the experiences of another. He (Dr. Cowley) loved his Library very deeply; and it was evident that Mr. Dircks loved his library too; so that they had so much sympathy in common. He

was struck by Mr. Dircks's reference to Vitruvius's requirements for the training of architects. It seemed that an architect required to know most things and to have been trained in most things; and he thought it might also be said that a librarian required to know most things, and, as far as he could see, Mr. Dircks fulfilled that requirement. He congratulated the Institute, first, on having such a library, and secondly, on having such a Librarian. He congratulated Mr. Dircks on the treasures which were committed to his

care and on the great familiarity he had with their contents, and asked the meeting to join with him in a very hearty vote of thanks to Mr. Dircks for his most interesting and entrancing Paper.

Sir HERCULES READ (Keeper of British and Mediæval Antiquities and Ethnography, British Museum), in seconding the vote of thanks, said that a Paper of the kind they had just listened to was one that, whether they were architects or not, they could not help being intensely interested in. It was a theme that appealed to every intelligent human being, especially to those who, like himself, had to deal mostly with the past in their official capacity. All the same, when he received the request from the Council to second the vote of thanks, he confessed that he was a little puzzled: but, thanks to Mr. Dircks, he now saw clearly that the Council were justified in asking him to second this vote of thanks. In the first place, by Act of Parliament he was an under-librarian of the British Museum, although he had nothing to do with books. In the second place, he was rather an old member of the Society of Dilettanti, of whose encouragement of the study of classical architecture Mr. Dircks had spoken. In the third place, he was the *doyen* of the Trustees of the Soane Museum, a museum full of architectural monuments, and he hoped members of the Institute made good use of the material that was there, for some of it was very fine. In the fourth place, he knew intimately a great many of those old architects Mr. Dircks had mentioned—Mr. Penrose, Mr. Burges, Mr. Wyatt Papworth, and others. It was, therefore, not inappropriate that he should have been asked to take a part in proposing this vote of thanks. There was another point of view, quite as personal to himself, but more interesting. Recently—since the war—he had been trying to turn into a museum a building that was intended for a library. That was distinctly professional, it concerned every architect to know why the one would not do for the other, and he would try to tell them. The gallery in question was amply provided with light, amply provided with columns 3 feet square—which he did not want—it was amply provided with many things which were of no use whatever. The requirements of a museum were, of course, widely different from those of a library. In a library one can take one's book to the light: in a museum the light must be brought to the object. In a museum matters must be so arranged that the light will properly fall on the statue or other object, because the object is immovable. Mr. Dircks had referred to the authors of some very fine books on architecture, Latin, Italian, and French. With regard to the Italian books of the fifteenth and early sixteenth centuries, it would be well worth the while of any student of Italian architecture to go somewhere beyond the purely architectural works and to look at the books of fine woodcuts, Venetian and other, in which the artist—they seem to have been artists in the highest sense of the word who illustrated books—had made his frames or his title-pages and other incidental illustrations in the most beautiful style of the time. He did not think there was

anything more beautiful than the Venetian work of the Middle Renaissance.

Mr. WM. WOODWARD [F.] said that Mr. Dircks's Paper had recalled to him some very interesting reminiscences. He agreed with Dr. Cowley that it was a very great thing in a librarian not only to know the richness of his library, but to be acquainted in detail with the books which the library contained. Disraeli in his *Curiosities of Literature* mentions a distinguished Italian book-lover, every floor of whose house was filled with books: he lived with them, never really went to bed, but sat in a reclining chair amidst his books. Yet notwithstanding that he had these thousands of books, if any one asked him to refer to a book, he knew exactly not only on which floor the book was, but on which shelf and what part of that shelf. The father of his dear old master, Mr. Arthur Cates, was Librarian of the British Museum, and it was said of him that if any one asked for a particular book at the Museum, he would say, "In the gallery, on the fourth shelf, the fourth book from the left-hand end." He (Mr. Woodward) had, on many occasions, consulted Mr. Dircks as to the particular book he wished to read, and Mr. Dircks had at once put his hand on that book, and so added not only to the interest but to the value which attached to the Institute's unique Library. Mr. Dircks had referred to the Architectural Publication Society's *Dictionary of Architecture*. Mr. Arthur Cates and Mr. Wyatt Papworth were the Secretaries of that Society and the instigators of the *Dictionary of Architecture*. Among the contributors were Sydney Smirke, Sir James Pennethorne, Cockerell, Hardwicke, great men of sixty years ago. If our young men would consult that work they would get a good idea of the architects of sixty years ago, and of what they wrote upon architecture and its literature. He hoped the funds of the Institute would admit of the publication of a catalogue of this magnificent collection. At all events, he trusted that Mr. Dircks's Paper would be published in its entirety in the Institute JOURNAL, so that not only those present that evening and the members generally, but the public outside might be made acquainted with their unique and magnificent Library, and encouraged to visit it and inspect its precious contents. He supported the vote of thanks with much pleasure, and trusted that Mr. Dircks would live long to attend to their requirements at No. 9, Conduit Street.

Mr. H. HEATHCOTE STATHAM [F.] said he also would like to contribute his testimony to the help Mr. Dircks gave to anybody who wanted to look at a particular book or to look up what had been written on any special subject. He was always ready to give a summary of what books there were on any particular subject, and his assistance was exceedingly valuable in that sense to every student using the Library. But there was a point of less personal and more permanent importance he wished to speak of, namely, the inadequate provision in the Library for the books. The Literature Committee were constantly considering books sent to them, and books brought to their notice, as to whether they were worth purchasing or not, but

when they were acquired the Librarian had nowhere to put them. The Library was always increasing, the space even now was inadequate, but apparently no steps were being taken to increase it. Moreover, the valuable ancient works they possessed ought to be in a building which was fire-resisting. In the event of a fire they would lose works which nothing could replace. These were matters for the immediate consideration of the Council: what could be done to increase the accommodation in the Library, and to provide safely for the valuable books in it? If they could see to that, it would be one of the best proofs they could give of the confidence they reposed in Mr. Dircks.

Mr. C. F. A. VOYSEY, called upon by the Chairman, said he felt he was a rank outsider, knowing little or nothing about libraries. Still, he did know something of Mr. Dircks; he had the honour of his acquaintance, and was glad to endorse all the appreciation and praise he had received, while he much esteemed his usefulness and his extreme kindness. He hoped what he was now going to say would not be taken amiss, but while listening to the Paper he could not get away from the idea that such excellent Libraries were to a large extent responsible for the badness of modern architecture. With such excellent libraries we had no business at all. He was sure he was alone in his opinion. ("No.") He thought while we were hoarding other people's works we were neglecting our own modern conditions. The greatest architecture the world had ever seen had grown out of a complete understanding of the requirements and conditions which were purely local. It was Descartes who said that the more we were interested in and concerned with the past, the less we understood and appreciated the present.

Mr. H. M. FLETCHER [F.] said that in spite of Mr. Voysey's remarks he strongly supported Mr. Statham. It had been borne in upon the members of the Literature Committee that the housing of the Library was not adequate to its contents. Mr. Dircks's Paper had given them an idea—though most of them had a rough idea before—of the inestimable treasures the Library possessed, but it was hampered in its expansion by lack of room. The drawings in it especially were very badly crowded. New shelves had been provided lately, but still the drawings overflowed, and unless the Institute tackled this question seriously, and considered the provision of more space and of fireproof protection, the Library must inevitably suffer.

Mr. W. H. WARD [F.] said he associated himself heartily with the vote of thanks to Mr. Dircks for his most valuable and interesting Paper. It would give all of them a deeper insight than they had before into the treasures it contained. It would also, apart from its intrinsic interest, have great value in bringing home to the public what a valuable asset the Library was to the profession, and consequently to the nation in general. He had met many people who had very grave doubts as to the general utility of the Institute: he had met those who had no doubt whatever on the point, they thought it absolutely useless, but with one exception

—that exception was the valuable Library it possessed: there was nobody who questioned that. It would be a most valuable result of this evening's Paper and the discussion if the Council could be brought to take a serious interest in the Library, its accommodation, and its proper preservation from fire. When one considered the years that had been spent in accumulating this unique collection of books, and that it might by some accident be destroyed in a few hours and that it would be impossible to replace it, the thought made one shudder. He had, therefore, great pleasure in associating himself with the hearty vote of thanks to Mr. Dircks, and giving his support to the remarks of Mr. Statham and Mr. Fletcher.

Mr. EDWARD P. WARREN [F.] said he would add his tribute as to the excellent qualities of the Library and its Librarian. Though in the past he had found time to go there occasionally, the botherations of architecture and other interests made it difficult to do so now. Perhaps Mr. Voysey might regard that as hopeful in one's old age, as he appeared to consider that the Library was increasingly useful the less it was used. He (Mr. Warren) took the contrary view, and he trusted the Library was filled to overflowing with students. He had always found—and he expected those who went there still found—when presenting his jug to be filled, that the Librarian sent him away with a supply of archives and a mixture of his own knowledge, and always done extremely kindly. He had to thank Mr. Dircks for his constant kindness: he had pleasant recollections of the ready way in which he assisted the Literature Standing Committee, on which he (Mr. Warren) served for several years. Mr. Ward would back him up in saying that the work of that Committee would frequently stumble if it were not for the constant support of Mr. Dircks.

Major H. C. CORLETTE, O.B.E., R.B.C. [F.] said he wished to support the vote of thanks to Mr. Dircks for his excellent paper. Mr. Fletcher had spoken about the Library accommodation. It certainly was a matter to which the Literature Committee wished the Council would give attention. It had been under consideration some time, but so far nothing of any account had happened. The proposer of the vote of thanks said he sometimes felt as if he hated books. As a member of the Literature Committee he (Major Corlette) must not say that he hated books. He could not agree with Mr. Voysey that they were the cause of bad architecture to-day, but he thought that Vitruvius was responsible for a good deal of poor architecture. Apparently he was living in the Augustan age: whether Vitruvius had anything to do with its merits he did not know, but he had a recollection that, later, when Constantine wanted to change his capital he went to Byzantium, and, finding there were no architects available, a law was promulgated that schools of architecture should be set up throughout the Empire. This seemed to show that Vitruvius and his bookworm influence, if any, had died in the three centuries preceding. He must have been a plodding theorist in "static" archaeology, born, without vitality, in an age of "dynamic" effort.

He evidently lived his life with the dead bones of an architectural past which was once alive with thought, and enterprise, and adventure. Mr. Dircks had shown them some very interesting drawings. One of them by Villar de Honnecourt indicated an extraordinary sense of feeling, a feeling for drawing combined with craftsmanship, although it was a line-drawing. The Gothic men might have been *mis*-called Barbarians. But when we discussed these questions of Gothic and Classic, we might get rid of ideas of style and think of conditions of climate and geographical position, and also try to express a little national character. Here were we in England always harking back either to France, to Italy or to Greece, and there were even suggestions that we should imitate Egyptian monuments for modern memorials to our own British dead in this twentieth century. The Library was a great asset for us, but we must go actually to the really essential library that all architects must read. A Library such as we had, full of valuable books, was only a secondary literary institution for every architect: the real literature of architecture was in the buildings—in the bricks, the stones, the timber, and their use in construction, such as we could discover all over Europe, and all over England too.

Mr. HERBERT JONES said he would not willingly leave the room without adding a few words of heartfelt tribute to the important paper Mr. Dircks had given them. It was worthy of the Institute, and worthy of the Library with which he dealt. The discussion had swung between censure of libraries and the inadequate accommodation for the treasures in the Institute Library. There was no doubt that housing of libraries had been greatly neglected in this country. He ventured, in all humility, to point out to the architects present—if he, an outsider and a layman, might venture to do so—that the greatest success we knew of in this country in modern times did not come from the brain of an architect, but rather from a brain of constructive power which knew what it wanted, and had the driving force to carry out what was wanted, in the case of Panizzi who flung the great dome of the British Museum Reading-room across the open space in Bloomsbury, and formed the largest and most convenient reading-room of modern times. There was much to be said for the popularising of the treasures in the Institute Library, and he wished they could be more popularised: the people of London generally did not know of it—indeed, some experts did not. A library of architecture dealt with one of the greatest desires of the human mind, because almost all the arts were subordinate to, or aided in, architecture: sculpture, painting, and so on, formed portions of the ornament of that ideal house which ideal man wished to erect for his ideal purposes. Those ideals were rarely, if ever, fulfilled, and perhaps it was well, owing to the brevity of human life and the folly of human ambitions, that they never should be fulfilled. The poet had told us in his dream—and only the poet was inspired to prophesy—that man built himself a lordly house in which he for aye should dwell. He did not bother

about the architect, for it arose from the brain like a fairy palace: he ornamented it with all the art at his command, and with every accessory which could impart solace to the mind. We could not do that, but in a library of great architectural books, such as Mr. Dircks had described that evening, we could see what might be done if man had the power of imagination and could build a house according to his desire, and if the banker's balance was always at his elbow, joggling him on to ambitions which he knew could never be fulfilled. He hoped the paper would be printed, so that they could read and study it, and he was sure he was right, speaking on behalf of the Council of the Library Association, when he said they cordially endorsed the opinions which had been expressed as to the value of the paper and its educational force, and to congratulate the Institute on having such a Library and such an able exponent of its merits.

THE CHAIRMAN, in putting the vote, said they had heard that evening a paper which everybody had appreciated. He thought he could promise that it should be printed in full in the JOURNAL, not only the portions which were read, but also those which had been left out owing to the pressure of time. The question of the accommodation and safety of the Library was under consideration by the Council, and he thought it would be a good thing if the Literature Committee would bring up a formal and properly stated set of ideas and suggestions for the extension and preservation of the Library contents; they would, he was sure, receive the Council's careful and most serious consideration. Mr. Voysey's remarks seemed to be the only ones adverse to the general opinion, and he might quote for his benefit a line from the poet: "Men must rise on stepping-stones of their dead selves to higher things."

Mr. DIRCKS, in reply, said he was very grateful to Dr. Cowley and Sir Hercules Read for their much too kind expressions in moving the vote of thanks. Mr. Voysey had suggested a point of view in regard to the use of a Library that was open to argument. He knew that Mr. Voysey had a very nice collection of books in his chambers, and he was quite sure that Mr. Voysey had read them. With regard to the accommodation in the Library, one did not wish to add an extra burden to the shoulders of the Council during the war: but now the war was well over he hoped that something might be done: because at present they were without sufficient shelves or drawers for a large number of books and drawings. He greatly sympathised with Sir Hercules Read's appreciation of old Italian books. In the early centuries of printing the publisher's or printer's personality was more evident than it is in modern productions. For instance, at the British Museum the other day he was looking at one of the first books on architecture published in France—Jean Bullant's book on the Five Orders—in which he found on the colophon page a quatrain and a sonnet. And as some quotations had been made that evening he should like to quote a phrase with which Bullant terminated his treatise, "*De jour en jour en apprenant mourant*."

WESTMINSTER ABBEY.

AN ENDEAVOUR TO READ THE STORY OF THE NORTH TRANSEPT FAÇADE FROM AN EXAMINATION OF ANCIENT PRINTS.

By S. HURST SEAGER [F.].

Late Lecturer on Historic Art at Canterbury College School of Art, Christchurch, New Zealand

THE pleasure derived from the contemplation of any work of restoration is dependent not only on the beauty of the work itself but in a large degree on its authenticity. Everyone has been impressed with the beautiful modern front of the North Transept, as commenced by Sir Gilbert Scott and completed by Mr. J. L. Pearson. But how far we are justified in taking pleasure in it as a record of the beauty of the original work has not, I think, been made clear. Isolated old prints have been reproduced in various books and journals from time to time, and descriptions and deductions from them have been given, but the conclusions arrived at have not been convincing because the prints as a whole have not been available, and the story, therefore, not easily read. I have always had faith enough to believe and to tell my students that the present work does represent very closely indeed the forms and spirit of the old work, but I have not till now had the opportunity of examining the evidence necessary to arrive at an independent opinion. I am indebted to Mr. A. D. Sharp, who was Mr. Pearson's assistant throughout the preliminary survey and rebuilding, for his kindness in showing me the drawings of the work as then existing and pointing out what evidence remained of original forms in the work itself. By the kindness of Mr. Batsford and of the librarian of the Guildhall library, I have been allowed to photograph all the available old prints of the North side of the Abbey: copies of these I have placed in our library, and have had the North Transept either reduced or enlarged, and show here in sequence for easy comparison. From these the statements made and opinions which have been expressed can be verified: it only needs briefly to refer to essential points, and place beside the records of the old work at Westminster records of those examples in France (which I photographed in 1907) on which the design at Westminster has been based.

In making use of old records of this kind it is impossible to make positive assertions as to the actual forms of the work at any particular period: many prints have been copied from earlier ones, perhaps long after important alterations have been made in the work itself: original errors may be repeated, so that it is no proof of correctness to find several prints expressing the same thing unless there is reason to believe that the drawing for the later print has been made from the actual building. The inaccuracies in drawing seen in original prints, their small size, or their incompleteness do not render them less valuable as an indication of what they were intended to represent: for in nearly every case there are contemporary examples existing

which can be referred to. To these examples the print becomes an index.

The first records are those of the middle of the sixteenth century, or about 300 years after the transepts had been completed—ample time for decay to have played havoc with the work, and for repairs, alterations and restorations to have been made. The earliest record is the very rough sketch of Van de Wyngaerde's Views of London, published about 1550. It indicates that *at that time* there was a pinnacle on the apex and a circle on the face of the gable, with some form of arcading or tracery beneath. The outline of the Rose window is clearly shown, and there are indications that the rose was contained within a square setting.

During the 95 years between this date and that of the next sketch by Hollar, dated 1647, the whole gable must have fallen into a state of disrepair, for we find that the upper parts of the turrets over the corner buttresses have been removed and the lower parts covered with domical roofs. The pinnacles at the foot of the gable have been reduced and have a pyramidal termination, while the pinnacle on the apex has disappeared and a small cross has taken its place. The circle and arcading in the gable have also disappeared: may we not, therefore, be justified in assuming that the whole gable had been taken down and either rebuilt in stone or filled temporarily with half-timber work? Hollar has taken pains to show the form of the gable filling at that time: if the gable is in stone there is warrant for the form of the diaper in the fourteenth century tracery in the Western cloister, the only difference being that the hexagons in the gable are elongated.

In 1654 the gable and its pinnacles had been rebuilt, as shown by Hollar's careful drawing of that date; so that if we can place any dependence on Hollar, and I think we can, for he was not only the draughtsman, but also the engraver, the period of this rebuilding is narrowed down to the seven years between the dates of Hollar's two sketches. The pinnacles at the base of the gable have been rebuilt to their former or usual height above the level of the apex, and the gable itself is now covered with tracery of a type similar to that seen in the thirteenth century work of the North walk of the cloister, but in the gable there is no enclosing arch, and the three arches under the circles are filled with a diaper which appears to be suggested by the tracery of the Rose beneath them.

The Rose is drawn with great care, and seems to lead to the conclusion that the original window in this North transept *did not correspond with that in the South transept*. It would be exceptional if it did.

Ancient Priests of the North Transept



1500
Wyggerde



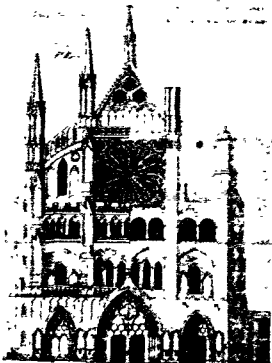
1689
G. Collins



1736
J. Jones



1647
Hollar



1713 (for Ure)
Dickenson



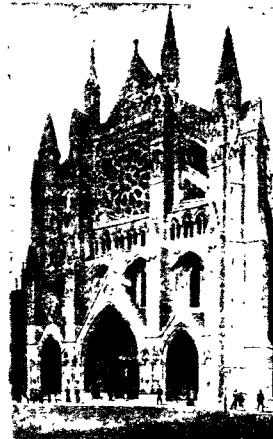
1801
G. Middleton



1654
Hollar



1720
B. Cole



1902

In all the French examples, except in the early one at Laon, the Rose windows are extremely varied. At Reims the Western window (a very usual thirteenth century type) which is repeated in the Southern Rose at Westminster, is of quite a different type from those in the transepts. The transept Rose at Reims, as also those at Laon, Chartres and other places, is of the type seen in Hollar's sketch. The South Rose at Chartres is so like the one shown by Hollar to have existed at Westminster that it seems impossible not to believe either that the North transept Rose was copied from it or that both were copied from the same example, the only difference being that the Chartres Rose has 12 divisions and Westminster 16. The same type of window is seen in the print by J. Collins, published 35 years later—in 1689. There are differences in detail, and the gable tracery is so badly drawn that it is impossible to interpret it, but I submit for consideration that there is evidence enough to lead us to believe that the Rose in the North transept was based not on the Western Rose at Reims, but on the other type of window seen at Chartres, which had only just before been completed in so many of the French Cathedrals.

There appears to be insufficient evidence to warrant a conclusion being drawn from the drawings as to the piercing of the spandrils of the square containing the Rose. In Hollar all spaces between the tracery in the gable, square and Rose are left unshaded. In Collins they are all unshaded in the gable, and all shaded in the Rose and square. In a drawing by J. Cole, which appears to have been made from the building, all the spaces in the Rose are unshaded, the spandrils are shaded so that the Rose stands out clearly as a circle. In the gable the voids are shaded while the solid diapering is unshaded. Turning, therefore, to precedents, the evidence is very decidedly in favour of solid spandrils. They are not pierced in the South transept window at Chartres—the prototype of the North transept at Westminster. At Chartres the row of horizontal lights is brought up close to the Rose and the need for piercing the spandril *when these two systems are brought into juxtaposition* is clearly seen, and was seen by the thirteenth century builders, who pierced in a clumsy way the opposite transept window (as the illustration shows). The spandrils of the West window at Reims are also pierced for the same reason. It would be an exception to the rule to pierce the spandrils when the horizontal lights are sufficiently far from the Rose not to interfere with its effect as an impressive circle of light. In the West front at Amiens—in some respects the prototype of the North transept façade—there is a horizontal row of lights, but they are separated from the Rose by the gallery of statues, just as at Westminster the horizontal row of windows is separated from the Rose by the arcade beneath it standing in front of a solid wall. The spandrils are not pierced at Amiens.

In the *South transept* at Westminster the corresponding arcading is glazed and the spandrils are pierced in accordance with the ever-growing desire to make the whole field a glow of colour as in the North window of

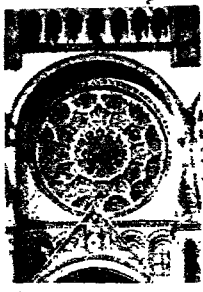
Amiens. The opinion that the Rose in the North transept was originally different from that in the South is strengthened by the fact that Wren tells us in 1713 that this "North-window had been formerly in danger of Ruin but was upheld, and stopt up for the present with Plaister." It would appear from this report that the Rose was the part of the transept which called for immediate attention, and it is significant that Wren does not say that he will restore it to its original form but that he will put in a window "to answer to the South-rose-window," of which he submits a drawing. The drawing, made for Wren by Dickenson in 1713 (published in the *Building News* of 1888), when read in conjunction with that of B. Cole (published in the 1720 edition of Stowe's survey), is of the greatest interest—the one I think is explanatory of the other.

Dickenson's drawing, as seen in the illustration, is in two distinct parts. There is a drawing of the whole front as it existed in 1713, which has inserted in it a design for a Rose and for the gable tracery.

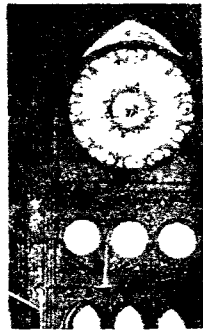
A Flap, subsequently secured to the left-hand side of this drawing, covers the whole of the left-hand half of it—with the exception of the Rose and gable. To expose these on the lower drawing the Flap had been cut away. The drawing on the Flap itself is proved to have been made in 1713, for it is signed by Dean Sprat, who died in that year. It did not receive the approval of Wren till 1719, for in that year he signed it: "I do approve of this design."

I submit that the right-hand half of Dickenson's drawing shows—with the exception of the Rose, which had been carried out in a simpler form—the work as existing in 1719, or six years after the original drawing had been made, while the left-hand half, signed by Wren in that year, indicates how Dickenson under Wren proposed to complete it. Wren was then in his 86th year. By an examination of the drawing it will, I think, be admitted that all the work shown on the right-hand half *is not old work*. The gable filling is, I submit, a complete design for a new work. The Rose is in the main a drawing of the whole of the Southern Rose which Wren had said he intended to copy. The remainder—with the exception of the round arched arcade which Wren said had lately been added—represents old work. It is exactly these features—the Rose and the Gable—which I consider to be shown as if completed in Dickenson's drawing—which are shown in a very rough way in B. Cole's drawing made before 1720. Are we not justified therefore in assuming that Cole, some time before 1720, altered the previous prints to show the alterations that Wren had at that time already made—even though his Rose is a rendering of Dickenson's drawing rather than of the window actually inserted—and that Dickenson's drawing, shown on the left-hand side of the illustration and signed by Wren in 1719, was made on a separate piece of paper cut away to show those portions of the 1713 drawing *already executed*. This reading of the drawing is not contradicted by the fact that the window was actually carried out by Wren in a

Precedents — The Gable and Rose Enlarged — Precedents



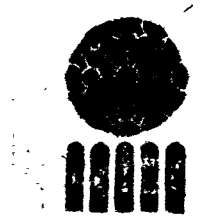
Lady West Rose



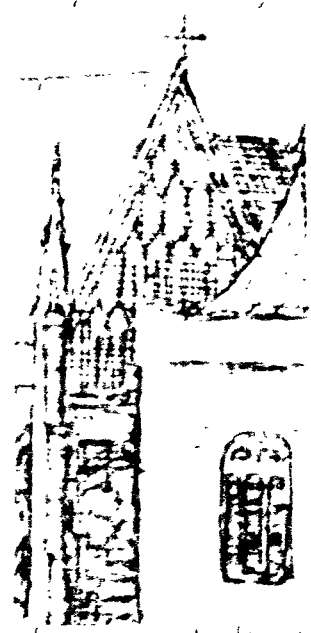
REIMS South Rose



Charles North Rose



Charles South Rose



1647 — Hollars Print — 1654



WRENS ROSE on Tracery after 1713



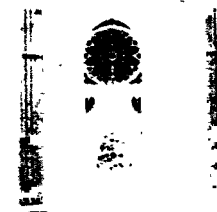
Charles Print before 1720



Arches under Rose from Hollars 1654



REIMS West Rose



REIMS Looking West



AMIENS West Rose



AMIENS West Front

much simpler form. There would be no necessity to alter the 1713 drawing if the work had, in 1719, already been done.

The features unaltered in Cole's drawing, that is the turrets, pinnacles, arcading under the Rose, the windows under the arches, panelling on the wall containing the porches, the balustrade over it and the porches themselves, are just those things which Dickenson proposed to do: for at the time Cole made his drawing, Wren signed Dickenson's drawing approving the design for the execution of these works. It has been said that the Rose was not built till 1722, as that date is on the glass. Would it not be reasonable to suppose that 1722 is the date of the glazing—not of the stone work? It is scarcely likely that the glass would have been put in while extensive building operations were in progress all around the Rose. Assuming that Dickenson's restorations were commenced soon after the signing of the drawings in 1719, it is reasonable to conclude that three years later they would have been in a sufficiently forward state in the upper part to allow the glass to be inserted.

The problem of the arcading under the Rose is a very interesting one. In the arcading at Amiens, there are at the sides two, and in the centre four, main arches, richly moulded, containing tracery supported by a slender shaft, and it has been considered that this treatment was originally followed at Westminster.

The earliest record is Hollar's print of 1654: it shows not main divisions of 2 and 4, but equal divisions of 4 and 8 by shafts of equal size supporting interlacing arches. There is a misleading reminiscence of the Amiens division, because the 4 complete arches are very slightly higher than the others, and have a quatrefoil in the tympanum. The pronounced division into 2 and 4 comes first in the print by G. Collins, 1689, where we see that the pointed arches have been removed and replaced by the semi-circular ones, which led Wren to speak of a "little Domic passage."

In making the survey before his restoration, Mr. Pearson had every stone of the old work carefully measured, and set out on large scale drawings. I have now on my table a drawing made by the Clerk of Works, the late Mr. Thomas Wright, showing the courses of the original free stone of Henry III.'s time of the walling behind the arcading. There are clearly shown blocks of stone, 10 inches square on the face, which are not in the line of the courses. These, as the drawing shows, are set out horizontally, not in relation to divisions of 2 and 4, but in relation to divisions 3 and 5. The top of them is 14 inches below the line of the old lead flashing, and 8 feet 3 inches below the square containing the Rose.

These blocks, as pointed out to me by Mr. Sharp, were evidently portions of lintels carrying the horizontal flat over the gallery. The height between the floor and ceiling of the original gallery or passage is thus definitely fixed and the vertical rectangular space which the arches originally occupied clearly determined.

Comparing this with the similar space at Amiens,

we find that at Amiens, taking the height as 1, the width is 2, while at Westminster the proportion is as 1 to $3\frac{1}{2}$. It is clear, therefore, that to obtain an artistic effect there must of necessity be a very different treatment. It can be seen at once that the division into 2 and 4 was at Westminster impossible.

By reference to Hollar's print, as also to Collins's of 1689, it will be seen that the proportion of the rectangular space is not 1 to $3\frac{1}{2}$, but about 1 to 2 $\frac{1}{2}$. This proportion has been obtained by raising the tops of the arches nearly to the level of the Rose, so that the ceiling, of which we know the exact position, would, had it been there at that time, have been some feet below the arched openings. Is it not clear, therefore, that the original gallery had fallen into decay, and had to be removed, and that the stone beams were cut away before Hollar's time; that the interlacing arches he shows are *not original work*, but a re-building, carried out presumably at the time of the other rebuilding shown to have taken place? This position of the tops of the arches was maintained by Wren, who lifted up the floor of the passage about 3 feet, thereby attaining an approximation to the original proportion of 1 to $3\frac{1}{2}$.

This raising of the passage roof shut off from view the lower part of the Rose, as can be seen from photographs and drawings of Wren's work, made from the ground level. It will be seen from the above that by adopting the divisions of 3 and 5, Mr. Pearson was not merely copying the work of Wren, but was following what he had discovered to be the original construction, and by restoring it to its original level, the Rose is now fully seen, and the extreme beauty of the whole work is enhanced. It may be said that if in Hollar's print the gable above and the arcade below the Rose are not representations of original work, was not the Rose itself also rebuilt at that time? It may have been, but from the above evidence, and following the precedent set by the copying of the original Rose of the Southern window, when that window was restored, it is much more probable that if the North Rose was rebuilt it was done in accordance with the previously existing work, than that a new design should have been inserted.

I need not refer to the other features of the design further than to note that the gables over the porches seen in Hollar's sketch of 1654 have been restored to us.

Before 1736 the whole work on the transept façade was completed, for at that date J. James's fine drawing was published, showing all the features of Dickenson's drawing, with the exception that the Rose can be seen to have been carried out in a simplified form. Does not Mr. Pearson's perspective, in comparison with the prints, lead us to the conclusion that we may take pride in the work, not only as a beautiful creation in itself, but as a record of the spirit and, as far as possible, the form of the work as left by Henry III. and his artificers? And does it not stand as a token that the same care and skill will be brought to bear upon the many restorations yet to be made by those in whose hands this responsible task is placed?

ARCHITECTURAL EDUCATION.

Papers read at the Franco-British Conference of Architects held at Paris, 12th-13th November, 1920.

IV. THE RELATIONS BETWEEN BRITISH AND FRENCH ARCHITECTS.

By JOHN W. SIMPSON, President R.I.B.A.,

Membre Corr. de l'Institut de France.

MONSIEUR LE MINISTRE, MONSIEUR LE VICE-PRÉSIDENT, MESSIEURS — Permettez-moi d'abord de vous dire, mes chers collègues français, combien nous sommes touchés de la bienveillante amitié qui nous a conviés dans cette salle pour vous exposer nos idées. C'est un bien grand honneur que vous nous faites, dont nous vous sommes tout reconnaissants. Je dois cependant, vous exprimer tous mes regrets personnels des circonstances inévitables qui m'ont empêché de faire distribuer en avance le texte de ma petite allocution.

On m'a invité, Messieurs, à vous entretenir pendant quelques minutes des relations entre les architectes français et britanniques. Qu'est-ce donc que nous devons comprendre par ce mot 'relations,' qui comporte tant de significations diverses ?

Il y a des relations de toutes sortes : financières, commerciales, étrangères, nationales, les rapports éloignés et proches, relations mondiales, même mondaines dont nous n'évoquons que faire. Pour nous autres artistes, cependant le mot me paraît indiquer un degré de parenté, la liaison certaine existant entre membres d'une grande famille, une pitié l'enthousiasme qui les dirige tous vers le même but, l'avancement et l'enrichissement de l'architecture civile.

Nous sommes, en effet, tous frères, nés d'un même métier, sortis des écoles de la d'esse Architecture, fruit elle-même du lit céleste où la Beauté s'est donnée à l'Utilité. Comment donc nous accordons-nous entre nous ? Quelles sont nos relations mutuelles ? Analysons un peu. En quoi consistent-elles ? Quelle est leur condition actuelle ? Que doivent-elles être ?

Les relations entre les Architectes de deux pays civilisés et affrès peuvent se résumer en deux catégories : 1^{re} confraternité syndicale liée par l'effort commun, 2^e amitié intime et personnelle. Elles exigent donc la connaissance mutuelle des représentants de leurs pays respectifs, sans quoi, évidemment, ils ne peuvent ni se comprendre ni s'aimer. Par suite, une éducation logique leur apprenant à se désaltérer aux grandes sources historiques, leur pénétrant l'esprit d'un même idéal du devoir. Enfin, une généreuse éducation, inspiratrice de belles pensées, qui, saisissant vol, caprices, emprisonnées dans la pierre deviennent l'immortelle Architecture.

Que dirait-on de la condition actuelle de nos relations ? Elles sont excellentes : comment voulez-vous qu'elles ne le soient pas entre gens qui se respectent et s'adonnent ? Mais elles sont lamentablement insuffisantes. Les visites sont rares. Il y a peu d'architectes anglais qui comptent parmi leurs amis personnels une douzaine de leurs confrères français. Je doute

fort que les amitiés françaises de même nature soient plus étendues. Pourquoi ne se connaît-on pas mieux ? Observe-t-on le voyage ? Mais Paris est tout près de Londres, et les touristes circulent en foule des deux côtés de la Manche. Quant à la traversée, ce n'est que la Douane qui est vraiment désagréable, et d'ici peu, celle-ci reprendra sans doute son indifférence habituelle. Observe-t-on la différence de langage ? Mais les artistes parlent tous la même langue. Il n'y a aucune difficulté à se faire comprendre. Et où tout le monde s'exprime par les mêmes moyens. La vérité — j'ai honte de l'avouer — c'est que tout occupés à nous instruire, tout absorbés dans nos propres intérêts, nous venons étudier l'œuvre, sans penser à l'auteur — sans aller lui serrer la main, sans lui payer d'un petit compliment senti, la dette de plaisir et d'instruction que nous lui devons.

Eh bien, Messieurs, que tout cela finisse. L'égoïsme, c'est la mort de la camaraderie. Nous nous sommes réunis pour parler de l'éducation. Croyez-moi, les relations comptent pour beaucoup dans l'éducation : elles nous amènent à l'examen mutuel à la comparaison critique de nos méthodes, de nos œuvres, de nos ambitions. Pour se créer des relations internationales intimes et utiles, il faut entreprendre des voyages. Dans l'admirable livre, déjà reconnu comme classique, de mon cher et honoré ami, votre illustre président Leaver, il insiste beaucoup sur l'importance des voyages pour la formation des jeunes architectes ; et ce qu'il a dit des étudiants se rapporte également aux praticiens, car nous sommes tous étudiants, quoique hélas, non pas tous jeunes. Écoutons ce qu'a dit le maître à ce sujet : " On dit que les voyages forment la jeunesse, rien n'est plus exact. Le voyage est un des moyens de formation les plus puissants, aussi bien pour l'éducation générale que pour une étude particulière. Mais, pour que le voyage porte vraiment ses fruits, il est desirable qu'il soit fait autant que possible en pays étranger. C'est la vue d'une autre civilisation, d'un climat différent, d'autres habitudes, d'autres besoins, qui ouvre véritablement l'esprit du jeune homme intelligent et instruit, et peut rectifier en lui beaucoup de préjugés et d'erreurs. ... Il suffit de voyager un peu à l'étranger pour devenir plus modeste, et sans nullement abaisser nos mérites, pour reconnaître qu'il y a d'autres peuples qui font assez bonne figure, même dans les choses où nous pensons exceller. Comme l'a dit un grand voyageur du siècle dernier, 'Voyager, c'est comparer, et comparer c'est comprendre.' "

Je ne puis, ni ne dois, quitter ce sujet des voyages sans faire mention de la générosité de notre éminent confrère de l'Académie des Beaux-Arts, le Baron Edmond de Rothschild, qui vient de fonder un Hôtel à Londres pour les étudiants français de tout âge. Grâce à lui, ils peuvent venir dans nos murs faire connaissance avec nos vastes Musées, Collections, Bibliothèques et Monuments, ainsi que, je l'espère, avec nous-mêmes, sans avoir à s'inquiéter des inconvénients d'un logement pris au hasard dans une grande ville étrangère. Voilà une belle et noble pensée, je

rends grâce à mes confrères de l'Institut de France de m'avoir permis de m'associer à sa réalisation. Soyez assurés que nos visiteurs français trouveront toujours le plus chaleureux le plus cordial accueil chez leurs camarades anglais. Nous ne sommes pas, d'ailleurs, sans espoir de trouver chez nous un bienfaiteur pour fonder une pareille Maison à Paris, dans l'intérêt de nos étudiants anglais.

Jusqu'au commencement de la Guerre il existait en existe peut-être encore de nous un Comité International des Architectes qui servait à réunir les architectes des différents pays, dans ce comité ils travaillaient ensemble à plusieurs sujets d'un intérêt commun, les Congrès, les Droits d'auteur, les Concours internationaux, etc. Leurs travaux se terminaient toujours par un petit banquet intime, où l'on apprendait à se connaître. Encore une des gracieuses choses détruites par l'aveugle cupidité des Boches. Je doute fort qu'il soit possible de le ressusciter, sinon que dans une forme très restreinte, ce qui est à regretter, car il aurait pu se développer comme une espèce de Conseil central des Architectes. En tout cas, ses activités sont suspendues depuis quelque temps.

Je ne dois pas exagérer en affirmant que le noyau de ce comité d'union fut l'amitié franco-anglaise. Je ne me souviens pas d'une seule occasion où les architectes français et anglais n'envisageaient pas un sujet de la même façon, étant toujours d'accord, il leur était par conséquent facile de faire imposer leurs vues. Comme Secrétaire, j'ai eu l'honneur de travailler avec vos grands hommes, tels que Guadet, Pascal, Lucas, Dauterive, Nenot, Girault, Bonnier, Louvet, Laloux, Berthelot, et, j'en veux faire mention spéciale, notre infatigable ami et correspondant Poupinel, qui était l'âme de cette entreprise. Ces princes de la profession m'ont honoré d'une amitié qui m'est très précieuse.

Messieurs, je ne dois pas abuser de votre patience. En terminant cette courte étude, je me permets de vous soumettre une proposition. Il est d'importance acquiescée de nous solidariser : l'Union fait la Force dans les relations d'architectes, autant que dans les affaires politiques. Ne rentrons donc pas, chacun chez soi, sans laisser quelque chose définitivement accompli, quelque témoignage de notre réunion plus durable que les paroles échangées. Vous êtes ici représentants de la Société française des Diplômes, et de la Société centrale des Architectes Français, pour nous autres, je peux vous garantir l'approbation de notre Institut Royal comme tout acquiescé à nos décisions.

Voulez-vous alors que nous fondions, dès aujourd'hui, "L'Union des Architectes Franco-Anglais". Sa raison spéciale serait l'étude des questions d'intérêt commun, l'organisation des visites aux écoles, chantiers et travaux, sous la conduite personnelle de leurs architectes. La qualité des adhérents comporterait la recommandation, faite de connaissance personnelle, d'un confrère de l'autre pays. Je n'entrevois pas la nécessité d'une cotisation annuelle, en tout cas au début. Nous avons déjà assez de contributions. Après nous verrons.

Si cette idée vous sourit, Messieurs, si vous approu-

vez ma modeste proposition, faites-moi le plaisir de me laisser nommer comme premier membre et Président de l'Union des Architectes Franco-Anglais, mon très cher confrère Albert Louvet.

REVIEWS.

INDIAN ART

A Handbook of Indian Art—Architecture—Sculpture—Painting. By E. B. Havell. London, 1920. 25s. net. (John Murray, Albemarle Street.)

Mr. Havell's latest volume will appear to its readers as either a useful footnote to art history, or else as the authoritative survey of an important phase of the work of man. The exact position between these two descriptions into which it falls will depend on the predilections of the individual reader. Mr. Havell has already written in separate volumes on the three subdivisions of Indian art—architecture, sculpture and painting. In the present work he somewhat condenses his matter, and presents the whole within one pen and covers. At the same time he claims that "it enlarges upon and sometimes revises the conclusions arrived at in my former works." It may serve as the foundation of a full and competent history of the art in India which still remains to be written.

May we infer from the above that Mr. Havell himself contemplates such a work? If so, it will be welcomed by the architectural student, for our author is invariably informative, and, whether or not one endorses all his conclusions, eminently readable.

The plan of the present work is admirable, and it is in many ways a model for all art histories. The author has steeped his mind deeply and sympathetically in those religious and social ideas and concepts such as give the keynote to all art—nowhere more notably than in the peninsula of Hindustan—and, by giving an account of these in relation to Indian civil history, he invites his reader to follow him into the realms of art with awakened insight. By dealing more-over, comprehensively with the three phases of art he is enabled to indicate the true correlation of each to the great trinity in a manner that is not too often found in like treatises.

Nevertheless Mr. Havell to a certain extent is (quite excusably) harping on the same string as in his other works. He still lets it be seen that he holds a brief to refute the idea of a past generation to the effect that Indian art owed its best to foreign importation. Whether he is treating of architecture, sculpture or painting this point is never lost sight of. It was not at any given period the ruling race, or the many that through the ages have held sway in India, which contributed their distinctive character to the arts, though it may have influenced and modified them. The circumstance of their lending themselves so well to modification under successive hierarchies merely proved their adaptability and their inherent vitality. The Indian dome was no Turkish invention, but an indigenous product inspired by the sacred lotus-bud. No

Italian designed the Taj Mahal. The Gandharan sculptures, for all their Greek—accent (shall we say ?)—are still Indian, and not, at that, the best Indian. Indian painting was not borrowed from Persia but was an Indian development and lives on to-day in an Indian school.

It is this quality of livingness which so greatly distinguishes the art of India from that of almost all other countries, and that renders it a thing unique in modern times. There is no hiatus in the tradition from the days of Shah Jehan down to the present. How far this is to be accounted for by the fact that India has largely retained her old religious and social traditions is a matter for conjecture. Equally is it a matter for conjecture whether the quality of livingness can survive the inevitable blending of world traditions that is bound sooner or later to come about. But the livingness is there in the art as a whole if one knows how to look for it—at any rate in architecture and painting.

With regard to painting one is inclined to think that our author, having spent his Indian career in the exercise of the profession of drawing-master, is perhaps apt to set an undue value on this phase of the art. At any rate the reader is apt to feel that painting seems to be the least impressive of the arts of India, and that Mr. Havell's case is hardly strengthened by the examples he shows of the work of the modern Calcutta school, on which the claim to livingness rests. There is a thinness, an aloofness from modern life, even from the modern life of India, in the examples reproduced that is somewhat unconvincing. Nor can we think that the case for Indian sculpture is much better. One is entirely with Mr. Havell in judging the best work of the Græco-Bactrian school (by the by, he is distinctly reticent as to the work of this school in the present volume) to be inferior to the best produced from purely Hindu sources. But when one has to go right outside of the peninsula of Hindustan to seek the latter, and when one finds it by falling back almost exclusively on the Borobudur sculptures in the island of Java, the case for sculpture becomes somewhat tenuous. And where is any worthy modern Indian sculpture to be found at all? This phase of Indian art seems to have become a thing for the antiquary to a greater extent than in the case of the other two phases. It is doubtful whether it can ever overcome its remoteness from modern life—whether for it to do so would not involve a complete fracture of the living tradition.

There is greatly more hope for the phase of architecture. Much vitality is certainly displayed by the examples illustrated in the book of the modern master-builder's work, as in the Benares palaces and the mosque at Bhopal, besides in much other work not here shown, but which will be familiar to the reader who knows his India. But, again, when the test of touch with modern life is applied, the same weaknesses as in the other phases (though in a lesser degree) become apparent. The work is typical only of the East (in a racial sense) and not of that blending of East and West, of further

East and further West (to say nothing of North and South). It is not typical of that vast complex of races, religions and social ideas which is the life of India to-day, and which is ever developing in the direction of greater complexity, larger eclecticism. The crowning difficulty in the problem of Indian art is just that it has become a problem. But in periods during which art was what we understand by the term "living" was there ever any problem in the matter? Must it not be that, before art can re-establish its claim to livingness, all that is problematical shall have died out? At least till it has, though the art may not actually be dead, it is certainly dying, or at any rate very very sick. One questions further whether art, especially a sick art, can be benefited by attacking it as a problem, or by any other course than getting down and practising it. I fancy its ailment is not one for physic, but merely for diet. It cannot digest the staple food which is current to-day in the country's markets, and there does not exist enough for its sustenance of such food as it can digest. So, while we may certainly admit the justice of Mr. Havell's claim to the livingness of the arts of India, and while we ought to make the most of it, and to study and enjoy this quality, as books like those of our author are well calculated to help us to do, we must, I fear, do so with the knowledge that it may not be for long, unless very unexpected developments take place in India, and unless the Indian people show more signs than they do at present of applying themselves to the arts. "If India wants an architecture (and other arts) of her own, she must give her soul to the practice of it."

And the fact cannot be denied that the national self-consciousness of which these latter years have seen the awakening in India is not of the sort from which art-movements have been wont to spring. It is a backwash of the wave of world-unrest—rather more likely to be destructive than constructive, at least of all that belongs to the régimes of the past.

But apart from all that, Mr. Havell's book is to be recommended for a place on the shelves of every architectural student. No better corrective to some of the defects of our training could be found than a course of study of Indian architecture, for which his matter and his copious photographic illustrations well adapt it. When we have learned to understand the too us novel forms of expression there is much to be gained in the recognition of what underlies all these, and in finding that to be just an application of the same old art principles that are universal to all forms of expression and in all ages. So shall we help to rid ourselves of narrowing prejudices, and at the same time to attach ourselves more and more firmly to bed-rock essentials.

JOHN BRUCE [F.].

60, Castle Street, Edinburgh.
6th Dec., 1920.

OPEN FIRE GRATES.

The Coal Fire. A Research by Margaret White Fishenden, D.Sc., for the Manchester Corporation Air Pollution Advisory Board. Department of Scientific and Industrial Research—Fuel Research Board, Special Report No. 3. 1920. 4to, pp. 107. 4s. net. [H.M. Stationery Office.]

The domestic hearth, with its accompanying open fire, has long been considered, and probably will long remain, an essential element in the comfort of an English home. That it has its drawbacks will be freely admitted, but what is perhaps not so generally realised is that in its present usage, however delightful it may be to us as individuals, it is a serious menace both to the health and to the wealth of the community at large. To the general health because it is responsible for half the justly condemned smoke evil, and to the wealth of the nation because it consumes very extravagantly more than 40 million tons per annum of our rapidly diminishing coal supply.

Assuming that our attachment to the open coal fire is largely one of sentiment, its continued existence can only be justified if its radical shortcomings can be rectified. At present its survival is seriously threatened by gas and electricity—not to mention steam and hot water—each of which has some obvious advantages and many enthusiastic advocates, but it is interesting to note that the competition of both gas and electricity becomes more acute the more they approximate to the radiant efficiency of the coal fire.

It is to the measurement of the heating efficiency of the existing domestic coal fire, and to the influence on this efficiency of grate and of fuel that Miss Fishenden's research is mainly directed. The Report is published under the auspices of the Manchester Air Pollution Board. It forms No. 3 of a series for which the Fuel Research Board of the Department of Scientific and Industrial Research is responsible, and claims to afford useful data for dealing with the question of the use of smokeless solid fuel in domestic fires.

It is contended that previous comparative experiments on the heating efficiency and particularly the radiant energy of the open coal fire are unreliable owing to the differing methods of computation adopted. Miss Fishenden, while basing her experiments on the plan of the "Leeds" tests, has modified and standardised these, and claims to have devised a more scientific method of measuring radiant energy than that hitherto employed. The results of her experiments are set out in detailed and tabulated form, and the conclusions arrived at may be summarised as follows:—

Generally: The total heating efficiency of a coal fire is much greater than is often assumed.

Grates: So far as radiant efficiency is concerned the modern barless type of grate appears to have little advantage over older patterns. The advantages of a vertical fire over a more horizontal one—a direction in which gas and electric fires are claiming improvement—are found to consist not so much in the total radiant efficiency but in its distribution.

Fuel: Of the varieties of fuel available, both briquettes and crushed coal are of lower heat value than unbroken coal, and anthracite has only a slight advantage over ordinary bituminous coal. The superiority of dry gas coke is more marked, while considerably the best results are obtained with low temperature carbonisation coke, of which it is recommended that a supply should be put on the market at a reasonable price.

Comparison of Coal Gas and Electricity: It is claimed that, comparing the aggregate efficiency in room heating, gas is twice, and electricity three times, as effective as coal, but these advantages are more than offset by the relative cost, which, for continuous heating, may be taken as being, gas three times, and electricity five times, as expensive as coal. These proportions necessarily vary with the fluctuations in market cost of each, and do not apply where intermittent heating is the principal requirement.

Of practical hints in regard to economy of heat production and its distribution, the importance of flues being formed on internal walls and of grates being set flush with their jambs is insisted on: while it is noted that the advertised preparations for increasing the value of coal, mostly based on common salt, have no beneficial effect on the heat emitted from a given weight of coal.

The Report concludes with an Appendix containing a careful summary of the results arrived at by other investigators.

HERBERT A. SATCHEL [F.].

CORRESPONDENCE.

Scale of Fees for Housing Schemes.

11, New Court, Lincoln's Inn
30th November, 1920

To the Editor JOURNAL R.I.B.A.

DEAR SIR,—When the Council and the Committee are considering the Scale of Fees for Housing Schemes (which I understand is now open for discussion from A to Z), may I, as a keen member of the Scale of Charges Committee, suggest that the Council should avail themselves of the information and experience which this committee have amassed during the several years in which they were preparing the revised Scale of Charges?

It will be remembered that the Housing fees were dragged into the scale by the head and shoulders: the committee were expressly instructed that they could not make any alteration in this document to bring it into conformity with the rest of the scale, and they were forced to embody it, although they realised how inadequate and clumsy this paragraph was. It was inevitable, of course, that it would have to be revised, but the revision, now it has come, does not cope with all the prevailing conditions and possible eventualities.

I feel that however zealous the committee may be

who have handled this business (and I am the first to agree that the best brains in the Institute have been secured for this purpose) they have approached the matter not so much in the light of bitter experience and hardship as in an academic, not to say detached, manner.

I, like Mr. Cannell on the Practice Committee, am frequently asked, as a late member of the Scale of Charges Committee, to interpret the housing fees. I have, of course, to plead entire ignorance, and can only suggest the *probable intention* of various clauses. It seems to me that the matter has not been approached in the manner calculated to give the best results. The procedure, now that the matter has been fortunately reopened, should be—

(a) To get the report of the Scale of Charges Committee on Memorandum No. 51 with particular instructions to this committee to be prompt and giving them full powers to co-opt or to interview and examine members of the profession, and if necessary to visit and inspect typical schemes *in situ*.

(b) An announcement should be made in the JOURNAL that all those interested in housing schemes should communicate with the Institute and set forth succinctly their difficulties and hardships. This undoubtedly would bring forth a considerable amount of most useful material, and this should be edited, I suggest, by the Scale of Charges Committee.

(c) The whole of the Allied Societies should be invited to contribute communications upon the subject.

(d) The function of the present committee should be simply deputising the Government Department or Departments interested.

Three weeks or a month, if the matter were handled masterfully, would bring out all the information necessary to enable the committee to speak with authority as a deputation.

The second speaker last night informed the Meeting that the fee for roads and sewers (Paragraph 6) included *preparing* the quantities, but this was a misstatement. It covers merely the *issuing* of such quantities to the contractors, the *preparation* of them being in Section 2 under Quantity Surveyors' Fees.

One further remark I would make—viz., that it is incredible that the Ministry of Health Housing Officials should approach the Institute on the Scale of Fees with any purpose other than to bring about a reduction, and I think the Institute is justified in assuming that this is the case until they are positively told the contrary. Although this should not militate against friendly negotiations, yet I think that unless this assumption is kept always in the minds of the committee they will be mischievously led into agreeing to modifications which in the majority of cases tend towards reducing the already inadequate fees.

Yours truly,

PERCIVAL M. FRASER



9 CONDUIT STREET, REGENT STREET, W., 18th Dec., 1920.

CHRONICLE.

Proceedings of the Council, December 13th, 1920.

Wages in the Building Trade.—The Council decided to publish a note in the JOURNAL advising Members and Licentiates to do their best to obtain fixed tenders for building work whenever possible, and to notify the public press of the action taken in this matter.

Town Planning.—The Council have decided to communicate with all the Allied Societies in Great Britain and ask them for their co-operation in securing that a competent architect is appointed in connection with all town-planning schemes.

A letter has been addressed to Sir Henry Maybury, of the Ministry of Transport, expressing the Council's gratification at the action already taken by the Ministry of Transport with regard to the construction of arterial roads in the neighbourhood of London as approved by the London Arterial Roads Conferences held under the auspices of the Local Government Board, expressing the hope that the additional roads suggested by the London Society on their development plan will be considered in each case, inviting the attention of the Ministry to the suggestions of the Thames Side Housing and Development Committee, and impressing upon the Ministry the paramount importance of immediately preserving the routes of the proposed arterial roads and of obtaining the authority of Parliament for this purpose.

Grants.—The Council have made grants of £20 in aid of the funds of the Conjoint Board of Scientific Societies, and £5 in aid of the funds of the British Engineering Standards Association.

The Henry Jarvis Travelling Studentship.—The Council have sanctioned the preparation of a special certificate to be awarded to holders of the Henry Jarvis Travelling Studentship.

Classes of Membership Committee.—The Council have adopted the report of this Committee, and important proposals for the reorganization of certain of the classes of Membership will shortly be laid before the General Body.

Annual Exhibition of Architecture.—The Council have approved of a report of the Art Standing Committee on this subject, and a detailed programme will shortly be considered.

Honorary Corresponding Membership.—M. Albert Louvet, of Paris, President of the Société des Architectes Diplômés par le Gouvernement, has been nominated as Honorary Corresponding Member of the Royal Institute in place of M. Louis Bernier, deceased.

The Amir Faisal at the Institute.

Mr. Briggs's Paper on "Saracenic Architecture in Egypt and Palestine" attracted a numerous audience at the General Meeting last Monday, and the Institute had the unexpected honour of the presence of the Amir Faisal, who was attended by Brig-General Haddad. His Highness had been the guest of the President and Council at the dinner held earlier in the evening. A tall and strikingly handsome man, dressed in the picturesque Arab costume, his presence on the occasion seemed peculiarly appropriate, lending, as Mr. Briggs observed in his opening remarks, local colour to the subject of his discourse. In the absence of the President, who was confined to his house with a severe cold, Mr. Walter Cave, *Vice-President*, was in the chair, and before the meeting closed he expressed the great gratification felt by members of the Institute at His Highness's presence among them. Lord Milner some days beforehand had accepted an invitation to be present, but was prevented by a command from the King to attend the Dinner at Buckingham Palace that evening to celebrate the Prince of Wales's return home. Mr. Briggs's Paper was an extremely interesting one, and was illustrated by a numerous series of slides prepared from the author's own drawings and photographs. A large collection of the latter were hung on the walls of the room. A vote of thanks was passed to Mr. Briggs on the motion of Professor T. W. Arnold, Professor of Arabic at the School of Oriental Studies, seconded by Sir Bamster Fletcher [F.]. The paper, with illustrations, and the discussion will appear in the next issue of the JOURNAL.

The Office of Works.

The Times of the 7th published the following letter from the President, addressed to its Editor:—

SIR,—Your excellent leading article of the 3rd inst. on the Supplementary Vote for the Office of Works should go far towards curbing the predatory ambitions of that Department. The House of Commons, too, as is clear from your report of the debate, has no liking for this new tentacle thrown out for strangling private enterprise in building. Its astute parent pleaded for his offspring—this "kind of floating balance" of £200,000—"the historic excuse that it was "only a very little one" and, apparently, not to cost anybody anything. But he did not explain its creation, or the reason for its size, nor did he give any guarantee against its future growth. As, however, the bantling, of doubtful legitimacy, to which he confesses is a scheme which he estimates at some two millions, we may guess that the £200,000 represents 10 per cent. on that sum. Is that the necessary factor for his present operations? If so, we may expect the "floating balance" to reach a

million when he gets fairly to work on 10,000 houses. Out of whose pocket is this money, and its interest, to come? Members of the House of Commons will do well to scrutinize closely the Public Works Loan when it appears.

The scheme has one merit which its author modestly omitted to point out: no one will ever know what the houses cost. To local authorities this is but a small matter, since their liability is, as they cheerfully believe, limited to a penny rate. Time may show the fallacy of this belief when the taxpayer comes to the shouldering of a thousand million deficit for housing loans seem to cut little ice, and it is at least doubtful whether such a sum of loan money exists. But the Ministry of Health, to do them justice, are extremely concerned about cost, and the checks and forms by which they seek to control it are whitening the hair of many a town clerk and housing architect. Are the plans and accounts of the Office of Works to be subjected to the same minute investigation by the Ministry (if so, we may look for another considerable increase of officials), or may we suspect that relief from that harassing supervision is one of the great inducements to local authorities to hand over the whole worry to the uncontrolled Office of Works, and deduct the expense?

You allowed me to point out, in April last, that cottage building could be carried out almost entirely by labourers; a statement which Dr. Addison dismissed as "all rubbish." We now discover that the Office of Works is to employ, not building trade labourers only, but men who have no knowledge at all of building trade procedure. Moreover, the employment is to be "direct," *i.e.*, without the intervention of a contractor, whose profit is limited, in housing contracts, to a fixed and not always remunerative amount. I have some experience in this matter, and I decline to believe that anyone—least of all a Government Department—can carry out building of any magnitude as cheaply as a skilled and reputable contractor. It is common knowledge, as any experienced builder will confirm, that men work better when they know their employer depends on their exertions for his living than when a lesser output does not touch his pocket.

The Office of Works—I quote Sir A. Mond—"is acting in the capacity of architects and contractors." The nature of the "contract" is not stated, but his explanations seem to indicate that it is no more than an "estimate," which may or may not accord with the eventual cost to the local authority. One of the most important duties of an architect is to supervise the work of the contractor and protect the interests of his employer. Will the Office of Works condemn defective work in its own buildings? At whose expense will it be made good?—I am, Sir, your obedient servant.

JOHN W. SIMPSON, *President R.I.B.A.*

Mr. John Slater, in a letter published in *The Times* of the same date, says: "The question is a very much larger one than of mere efficiency and economy. Is it in the interest of the art of architecture in this country

that so large a part of the design and execution of important buildings should be in the hands of a Government Department? The answer is an emphatic No. Under such an arrangement you may get fairly good work but never the best, and the whole tendency is to cramp and deaden the spirit of architecture rather than to widen and vivify it. And what of the architects and assistants on the staff? They may be the veriest geniuses, but they will gain no individual credit for their ability. 'The Office' is responsible for everything, and after years of work the staff will be compulsorily retired at the age of 60 or 65, subsequent to which age there are many instances both in the architectural and engineering professions of a man's best work being done. In the interest of the Mistress Art itself, and of the many well-trained young architects who are just commencing practice, I venture to enter an earnest protest against the obvious tendency of the Office of Works to monopolize official architecture in this country."

The following is an extract from *The Times* leader above referred to:—

"Sir Alfred Mond alleges that he can build more cheaply than private contractors. The whole experience of the war suggests the contrary, and we are unable to believe that any Government Department will ever be a cheap substitute for private enterprise properly controlled. The essence of the issue are the overhead charges, which are bound to be taken into account in examining Sir Alfred Mond's calculations. In one year this economical Minister, who claims to be able to build cheaply, has increased his salary list from £278,000 to £455,000. In 1913-14 the Department had a staff numbering 384, but now its staff comprises 581 persons, in addition to a large number whose total is not shown in the Estimates. In the architectural branch alone Sir Alfred Mond now commands the services of 184 architectural specialists, as compared with 126 in 1913-14. He has at his disposal three Principal Architects for England, one Principal Architect for Scotland, eighteen Architects, thirty-four First-Class Assistant Architects, fifty Second-Class Assistant Architects, eleven First-Class Architectural Assistants, six First-Class Clerks of the Works, and twenty-four Clerks of the Works. In addition, he has budgeted for £75,000 for draughtsmen and technical assistants, as compared with £30,000 last year. No wonder he wants to find work for this army of officials, and to act as 'agent' for local authorities. . . . There has seldom been a more glaring instance of a Department eagerly seeking fresh work in order to justify its pay-roll."

Rejection of the Ministry of Health Bill.

Dr. Addison has issued the following statement explaining the consequences of the House of Lords' rejection of his Bill —

1. A serious blow is dealt at the only contribution now being made by private enterprise towards the building of houses. The effect of their lordships' action is to bring the private builder's subsidy to an end on 23rd December, although reduced payments may be made for the following four months. The Government must, of course, keep faith with the private builders who have now completed 4,493 houses and who have received certificates in respect of the proposed erection of 26,513.

2. Houses which are withheld from occupation by persons seeking to evade the Rent Restriction Act will remain empty, unless, unfortunately, further illegal seizures are made, against which the provisions of the Bill would have guarded.

3. The London County Council and other big municipalities, who are building houses outside their own areas, will find their schemes held up by their inability to make arrangements for providing the necessary roads, sewerage, and water supply for those houses, and incidentally this will have the effect of stopping schemes which would provide a large amount of work for the unemployed, and economical arrangements whereby water can be supplied to adjacent areas, but which do not actually adjoin, will continue to be prevented.

4. County councils, who have raised money for the purpose of financing the housing schemes of the minor local authorities in their areas, will be deprived of the protection against loss to their own rates which the Bill was designed to afford.

5. Similarly local authorities will continue to incur loss under various statutes, whereby they have to make advances of money at lower rates of interest than they can now obtain the money for.

6. Similarly a continued waste of public money and effort by local authorities will be incurred by the continuance of the present limitations on the economical use of their officers, land, buildings, etc., which clauses 11, 12, 13, 18 and 19 were designed to remove.

Commenting upon the situation, *The Times* says:—

For the muddle in which he is now placed upon the subsidy to private builders Dr. Addison is alone to blame. He began by a serious breach of Parliamentary convention, for he increased the subsidy, and extended its duration, without obtaining leave from the House of Commons. When he sought to regularise his position by a Bill, he dragged twenty other subjects into his measure. He can introduce a small Bill to-morrow upon the subsidy to builders if he so desires. Meanwhile the rejection of the Bill is tending to raise the whole question of the future of the Ministry of Health. Dr. Addison's position is that he has contrived to bring his department to a point at which it incurs the maximum of unpopularity, while it reveals a minimum of efficiency. Its muddles are notorious and wherever it intervenes chaos ensues. Before it is permitted to bring in any more Bills, with the exception of the proposed measure upon builders' subsidies, an inquiry should be held into the general working of the Ministry of Health. It would be well both for the country and the Government if such an investigation could be made at a time when Dr. Addison's energies were transferred to some other field.

St. Paul's Bridge and the Charing Cross Improvement.

In an interview with a representative of *The Observer* (reported in last Sunday's issue) Captain Swinton made the suggestion that the City might by a *beau geste* use the present opportunity of postponing St. Paul's Bridge and offering to build Charing Cross Bridge as a gift to London from the funds of the Bridge House Estates. Such a gift, he pointed out, would give the whole Charing Cross improvement scheme the real chance which it wants of being seriously considered.

"I am disappointed," Captain Swinton began by saying, "to hear that the Bridge House Estates Committee are

pressing at once to continue the scheme for building St. Paul's Bridge.

"The Bridge House Estates funds, I understand, were left a very long time ago for the maintenance of London Bridge, when it was the only bridge across the river, and they now bring in a very large annual income. Out of this income the Committee have done valuable work for the City of London. They rebuilt London Bridge, they built and widened Blackfriars Bridge, they built the Tower Bridge, and they purchased Southwark Bridge from a private company, and are now completing its rebuilding, a work which was rendered necessary because the steep gradients of the bridge militated against its usefulness for traffic.

"All this time, it is understood, very considerable sums of money have been piling up. It is now proposed to go to Parliament for an extension of the time for building the bridge, which is to be called St. Paul's, a bridge which from the very initiation of the scheme has been much criticised—by the architects because it is so designed that it loses the great architectural effect which would be gained by going straight to the dome of St. Paul's, and by those interested in the traffic of London because it does not appear that the very heavy expenditure which the bridge will involve will do very much to increase traffic facilities.

"The principal advantage which is suggested for the moment is that of bringing the tramways from South London over the bridge as far as St. Paul's Churchyard. But there a great problem arises. It being extraordinarily difficult, if not impossible, to carry the trams on through Aldersgate Street to meet those on the north side of London, they must either have a terminus on the surface, thereby blocking the approach which it is intended to make, or go to an underground station, which experts inform us may seriously affect the very uncertain foundations of St. Paul's Cathedral.

"Moreover, we have not yet had an opportunity of discovering how far the traffic necessities of the City will be met by the improvement of Southwark Bridge, and the question arises whether this heavy expenditure—on a new bridge within three hundred yards of it—is really necessary, at any rate at the moment.

"This question comes with more force because the whole position gives the Bridge House Estates Committee the opportunity by a *bona fide* to bring into the realms of practical policy what all Londoners agree would be the greatest London improvement put forward in our memory.

"The arguments in favour of the improvement which is known as the Charing Cross bridge scheme have been related so often that it is unnecessary to recount them, but here is an opportunity to give that scheme a real chance, for no greater impetus could be given to it than for the Bridge House Estates Committee to come forward openly and offer to build the Charing Cross bridge as a great gift to London.

"It is true that Charing Cross bridge is beyond the confines of the City, but so is the Tower Bridge, which the Estates Committee built, and London is greater than the City of London."

The Art of E. A. Rickards.

Mr. P. G. Konody, in a notice in last Sunday's *Observer* of the memorial volume on *The Art of E. A. Rickards*, recently published by Technical Journals, Limited, says:—

It seems strange, though, that in these essays on Rickards and his art his friends and admirers should have failed to stress, or even to mention, that passionate romanticism which dominated his character and all his activities. His life and his art may be summed up as a pursuit of romance. He found a wide scope for it even in his practice of architecture, the most scientific, logical and mathematical of all the arts. Though he never allowed the practical

side of his task to be obscured by this passion, his architectural work bears inevitably the stamp of this romantic yearning. One has only to examine the preliminary studies for architectural designs reproduced in the volume under discussion to realise the essentially romantic nature of his original conceptions, which, in the course of detailed elaboration, were gradually adapted to the practical exigencies of his problems. His finished designs retained much of the same feeling. Somehow his pen or pencil invested his drawings of buildings with life and romance and with the vital qualities which are so rare among the dry, mechanical designs in the architectural room of the Royal Academy. Mr. Walcot's drawings, of which Rickards always spoke in the most generous terms of praise, hold much of the same quality: but Mr. Walcot is not a practising architect, and lends his pencil to the interpretation and vitalising of other people's architectural conceptions.

More than once I have seen Rickards under the romantic spell woven by his own genius. One of these occasions was in the mysterious gloom of dusk under the mighty dome of the then unfinished Central Hall, Westminster; another when he took me on a moonlight night to see the effect of his great group of public buildings at Cardiff. With that curious mingling of supreme egotism and self-abnegating modesty, of hopeless pessimism and romantic exaltation, which endeared him to his friends, he spoke of his achievement, of his past career, which began in a draper's shop: of his hopeless prospects; of the "romance" of his standing there in the moonlight before his own creation, which he knew to be something to be proud of; of the difficulties that beset the architect's path, and of professional jealousies and meannesses.

The work that Rickards left behind him testifies to the seriousness of the loss England has sustained by his premature death. Mr. Arnold Bennett sums up the last phase of his life and the probable cause of his death as follows: "The War Office made an appeal for a few architects to do 'special work' in France. Rickards, with several others, responded to the appeal. Having submitted himself to the military machine and gone to France, he was set to do work that the merest clerk could have done just as well as he. The continued exposure in long motor-car rides had its inevitable effect on his delicate constitution, and after some time he was invalided home. . . . No one can say whether or not he might have been living to-day if the War Office had not had the idea of sending a distinguished artist, over military age, to act as a travelling clerk behind the lines in France."

The R.B.C.

The Royal British Colonial Society of Artists (R.B.C.) is now holding its third exhibition in Winnipeg. It is understood that the good standard of work shown in its earlier collections of modern work is fully maintained; and the interest of these exhibitions, which have been, and will continue to be, held both in the Dominions overseas and at home, is evident from the stated objects of the Society. It began operations as the Anglo-Australian Society in 1887, and was allowed to use the title "Royal" in 1889. In 1901 it became the R.B.C. under its present name, and was incorporated under Royal Charter in 1909; and the honour of the Royal Sign Manual to the Diplomas of its full Members was granted in the same year. Its objects as a corporate body aim at "uniting in one body

Artists of the Empire for the advancement of the Arts of Painting, Sculpture, Etching, Engraving, Decoration and Architecture, and generally the encouragement and promotion of those Arts "throughout the Dominions, and of bringing the Arts of the Dominions under the notice of those resident in the United Kingdom. The work and importance of such a Society must increase; and the fact that the Royal Academy and many of the other important societies at home and in the Dominions are represented among the Members and Associates of the R.I.B.A. should be some guarantee of the high standard and ideals at which it aims."

H. C. COLETTIE [F]

Presentation to Mr. Lewis Solomon [F]

At a meeting of the Board of Architectural Education, on the 3rd inst., Mr. Paul Waterhouse [F], Chairman, presiding, Mr. Lewis Solomon [F], who for thirty-two years has been identified with the examination work of the Institute, first as Examiner and then as Vice-Chairman of the Board, was presented by his old colleagues with an address, beautifully illuminated in gold and colours, on the occasion of his retirement from the Vice-Chairmanship of the Board. A photographic reproduction of the address to a reduced scale is given on the opposite page.

Mr. Solomon served his articles with Sir Digby Wyatt, and was the first to receive the Donaldson Silver Medal given by the R.I.B.A. to University College. He acted as Clerk of works in the building of Sir Digby Wyatt's Fine Arts Club in Savile Row. Elected an Associate of the Institute nearly fifty years ago, he proceeded to the Fellowship in 1883, and amid the preoccupations of a very busy practice has always taken an active part in the affairs of the Institute as a member of Standing and various Special Committees. A popular magazine of some years ago, which made a feature of recording the doings of the country's greatest workers, claimed for Mr. Solomon that "he is practically the father of English technical education." He it was who started the first little workshop at Norwood, and trained the teacher who was afterwards destined to train the South Kensington Teachers. He is a member of the Council of the Royal Drawing Society, and a member of several Charity Committees, especially those concerned with the welfare of the country's indigent youth, particularly boys. He was the author of a series of Papers on "The History of Furniture and Decoration from the Earliest Times till the Rise of Greek Art," published some years ago in the *Flourish Gazette*. His son and partner is Mr. Digby L. Solomon, B.Sc., an Associate-Member of Council, and recently Hon. Secretary of the Science Standing Committee.

The R.I.B.A. War Memorial

The War Memorial to be erected at the Institute from the design of Mr. T. L. Wills [A], awarded first place in the recent competition, is now in hand, and as the subscription list must shortly be closed, intending subscribers are requested to be good enough to

commit their contributions at the earliest possible date. Members and Licentiates are reminded that the maximum contribution from any one person has been fixed at one guinea, and the Committee hope that the balance still required will be made up of a multiplicity of smaller sums from those who have not already subscribed. Cheques and P.O.'s should be made payable to the Secretary R.I.B.A., and crossed "Lloyd's Bank, St. James's Street Branch—War Memorial Fund."

A Victim of the Terror in Ireland.

Members will learn with profound regret that the Captain Baggallay whose name appeared in the long list of victims of the cruel massacre of unarmed British officers in Dublin on the 21st November was the son—the only son—of one of the most esteemed members of the profession, Mr. Frank Baggallay [F]. The circumstances were described as follows by Sir Hamar Greenwood, Chief Secretary for Ireland, in the House of Commons on the 23rd ult.:—"Captain Baggallay was shot dead at 119, Lower Baggot Street. When the police arrived every occupant had left, and no witness was available to describe the circumstances. This gallant officer lost a leg in the War, and was a barrister by profession. He was employed in Dublin as a prosecutor on court-martial work and was a non-combatant officer." Captain Baggallay was twice wounded in the War, the second time resulting in the loss of a leg. The sympathy of the entire profession will go out to the father and mother in their terrible bereavement.

A False Death Announcement.

Mr. John B. Hector, *Licentiate*, of 33, Tothill Street, Westminster, S.W., writes personally under date 10th December contradicting the announcement of his death made at the Business Meeting of the 29th November. The Secretary greatly regrets the error, and hastens to explain that a letter addressed from the Institute to Mr. Hector's former address in Maida Vale on the 22nd November was returned through the post unopened, the envelope being endorsed, "Rep. died 4 years ago. A.M." The Secretary wishes to express his very great pleasure to hear on such unimpeachable authority that the announcement is a false one, and that Mr. Hector is living and in the best of health.

Henry Saxon Snell Prize

Next year's Henry Saxon Snell Prize, in the gift of the Royal Sanitary Institute, will consist of Fifty Guineas and the Medal of the Sanitary Institute, and is offered for an Essay on "Suggestions for a System of Central Hot Water Supply and Heating, adapted to Modern Housing Schemes, and to existing groups of Houses." The conditions require the following points to be dealt with:—1. Central Installation; 2. Appliances for and methods of distribution; 3. Methods of conserving the heat; 4. Provision for continued supply during repair of system; 5. Cost: Initial and Service; 6. Combination with other services for reducing expenses. Full particulars may be obtained from the Secretary of the Royal Sanitary Institute, 90 Buckingham Palace Road, London, S.W.1.

ALLIED SOCIETIES.

Birmingham Architectural Association.

At the third general meeting of the session held at the Association's rooms, Royal Society of Artists Buildings, New Street, Birmingham on 3rd December 1920, the President, Mr. H. T. Buckland [F.] in the chair, and 51 members and visitors present, Mr. Hobson read a Paper on "Gardens: Their Design and Construction." During the past 20 or 30 years, he said, there had been a noticeable increase of interest in the subject, particularly in connection with gardens of modest extent. Many of the larger country-houses, the homes of our old aristocracy, were noted as much for the charm of their well-laid-out parks and gardens as for their architectural character. The house and outbuildings formed the heart of the scheme, and the amenities conveniently arranged included the gardens immediately about the house, a kitchen garden properly sheltered; the orchard and other gardens usually merging into park lands or open country. A running stream, placid pool and verdant lawns add restfulness and harmonise the architectural lines of the building with the surrounding landscape. Fortunately the charm of a house did not depend on its size, and the smallest garden was capable of enchanting transformation when skill and artistic advice were brought to bear on its planning.

A garden should be restful. An ideal garden from an artistic point of view should contain the greatest possible number of pictures, harmoniously united. He who aspired to make one must not rely on the friendly aid of Nature to cover up his deficiencies: the capacity to recognise beauty was not in itself sufficient, he must acquire a knowledge of the technique of creating beauty.

Perhaps the best way of securing unity was to determine that one feature should be more important than the others, and that they should be grouped or disposed around it in subordinate positions and suitable proportions. On the subject of harmony perhaps the most important point, apart from colour, was the method of connection—the connecting and blending of the various essential units into one pleasing and restful picture.

The architect's ideal was to so arrange the plan of a house that no other structure could conceivably appear to be more appropriate to the situation. He should try to plan his garden in such a way that no other treatment could be in truer sympathy with the house. The house and garden must therefore be considered as indivisible parts of one composition. It should never be forgotten that the house was the heart of the whole scheme, its *raison d'être*. It should overlook the fairest scene of the garden, and from the garden should display its most favourable aspect. Unity of composition would be emphasized by an extension of the axial lines of the house into the garden, either in the form of main walks or central vistas. In the arrangement of a vista, care should be taken that the dominance of the main view was not weakened by the opening of side vistas on such a scale as to compete with, and distract the eye from the principle lines of sight.

Left to herself, Nature would ruin any garden. On an exposed site the ruling spirit might be a lusty wind which must be checked in its force before success could be hoped for, and this might necessitate a material alteration of one's arrangement.

The complexity of the subject of garden design would be admitted, but in the immediate vicinity of the house the main issue was comparatively simple. One might safely

say it was always desirable to arrange a few principal features, which were commanded by the main windows of the house, and combined with them were a number of secluded scenes of a special character.

The question as to whether a formal or informal garden was better was almost entirely a matter of appropriateness or fitness to the particular site under consideration. What was usually meant by formal and informal when referring to gardens? Different individuals might have different opinions, but we might take it generally that a formal garden was one in which we frankly dispensed with the direct guidance of Nature in the making of the picture. Although a formal garden did not necessarily preclude the full development of trees and plants, the positions occupied by them were strictly defined, and their relation to each other was such as would seldom occur in natural planting. In the informal garden we made a pretence of following Nature, but in reality we persuaded her to take a form of our choosing. Although not symmetrical as a whole, such a garden might contain detailed features or ornaments of regular shape in suitable positions.

One of the chief resources at the disposal of the garden designer was turf; the texture and colour of grass was so serviceable that it would carry the eye over a gap like a sunk road or fence without any apparent break in continuity. Beyond the garden boundary it would reappear and serve the form of a connecting link with some distant view. It was one of the principal agents in bringing out an entire garden scheme into harmony, and one might almost say "when in doubt use turf."

Ample provision must be made for flowers, upon which, after all, the intimate pleasure of the garden depends. If the size of the scheme would not permit of a rose garden, as a complete unit, then beds should be reserved and specially prepared for roses, without a good selection of which no English flower garden was complete. The charming old-world effect of well-filled herbaceous borders flanked by stone flagged paths, would not be forgotten, nor would the draped effect of a well proportioned pergola.

Where possible a rock garden should take the form of a distant unit, as secluded from the formal garden as practicable. The larger the size and the fewer the pieces of stone used in its construction the better the result. The effect of a natural outcrop of rock would only be reproduced by a study of Nature and after much experience.

For paths and terraces, natural faced hard stone flags produced an artistic and old-world effect. They were permanent and needed a minimum of attention. They might be coursed or laid at random in either rectangular or irregular pieces. They were most frequently laid with open soil joints to encourage vegetation.

Architects' and Surveyors' Assistants' Professional Union.

The second sessional meeting of the Liverpool Branch of the Architects' and Surveyors' Assistants' Professional Union was held on the 29th November, in the Rooms of the Liverpool Photographic Society, when about 45 members were present, and were addressed by Mr. Lionel B. Budden [L.P.] of the Liverpool School of Architecture, on the subject of "Architectural Training." Asking the question, "What is an architect?" he set forth the five different branches of knowledge in which an architect must be proficient, viz.: planning, sanitation and hygiene, design, presentation of design and administration, including legal and financial matters. He pointed out that the old system of training by pupillage, which had begun to fail in its object before the war, had now received its *coup de grace*. An office was

primarily concerned with the getting of building work done, its function was not to teach, nor could it possibly have adequate facilities for doing so. The academic training of the architect which had been in vogue in France for over two hundred years had now become universal in America, together with the specialisation in design, engineering and the business side of the profession. In our own country academic training was only in its infancy, and the full effects of its introduction would not be apparent for a generation. One of the immediate difficulties it had to face was the bridging of the gulf between the school and the office.

OBITUARY.

J. B. Mitchell-Withers [F.].

John Brightmore Mitchell-Withers passed away with startling suddenness at his residence, Heatherleigh, Oakholme Road, Sheffield, on Saturday, 23rd October, in his fifty-sixth year. He was the eldest son of the late J. B. Mitchell-Withers, himself an architect of considerable local repute. Mitchell-Withers the younger was educated at Rugby and upon leaving school entered his father's office, in which, and at the local School of Art, he received his architectural training. He was the first of his generation of Sheffield architects to pass the Qualifying Examination of the Royal Institute, and was elected an Associate in 1891, passing forward to the Fellowship in 1911. He joined the Sheffield Society of Architects upon its formation in 1887 and served upon its Council for many years. He was President of the Society 1911-13 and during part of this time was a member of the Council of the Royal Institute. He took a great interest in educational matters and helped to found the Department of Architecture at the University of Sheffield. From the foundation of the Department to the time of his death he was upon the honorary staff; his lectures showed keen insight and study. His architectural work, first in association with his father and later upon his own account, included schools, workshops, business premises and various types of domestic buildings. His planning showed careful attention to the particular requirements of each problem and his buildings are characterised by good proportion and refined detail.

He married Edith Sarah Winder, the youngest daughter of the late Edmund Winder, agent for the Duke of Norfolk's Sheffield estates, and is survived by her and by a son and daughter.

Mitchell-Withers was of a quiet, almost retiring disposition, yet genial to all who came into intimate association with him and ever ready to help or advise those who sought his assistance. Our friendship with him dates from early student days at the School of Art, and his comparatively early death, while arousing keen sorrow and regret, revives pleasant memories of sketching excursions and other meetings pervaded by good fellowship and mutual help and encouragement in our studies and work.

CHARLES M. HADFIELD [F.].

JAMES R. WIGFULL [A.].

MINUTES. IV.

At the Fourth General Meeting (Ordinary) of the Session 1920-21, held Monday, 13th December 1920, at 8 p.m.—Present: Mr. Walter Cave, *Vice-President*, in the Chair; 33 Fellows (including 12 members of the Council), 39 Associates (including 3 members of the Council), 16 Licentiates, and numerous visitors—the Minutes of the Meeting held 29th November having been published in the JOURNAL were taken as read and signed as correct.

The Chairman addressed a few words of welcome to H.H. the Amir Faisal, who, attended by Brig.-General Haddad had come to hear Mr. Briggs's Paper, and expressed the gratification of members at His Highness's visit.

The Secretary announced the nomination of the candidates for membership whose names were published in the JOURNAL for 4th December, page 29.

Mr. Martin S. Briggs [A.] read a Paper on "Saracenic Architecture in Egypt and Palestine," and illustrated it by a series of photographs and drawings shown by the lantern.

On the motion of Professor T. W. Arnold, seconded by Sir Banister Fletcher [F.], a vote of thanks was passed to Mr. Briggs by acclamation and was briefly responded to.

The proceedings closed at 10 p.m.

* * * *The Report of the Civil Survey Conference held on the 15th inst. and Mr. Collett's Paper on the Improvement of London, read on the 16th, will be published in the next issue.*

Professional Announcements.

Messrs. Boucher, Tatchell & Galsworthy [F.F.] and Mr. Geoffrey C. Wilson [A.] have transferred their offices from Queen Anne's Gate to "Bank Chambers," 32 Strand, W.C. 2. Telephone numbers: Regent 3626 and 3627.

Mr. W. Curtis Green [F.] has removed to 5 Picketing Place, St. James's Street, S.W.1. Telephone number: Regent 2893. Telegrams: "Modillon, St. James, London."

NOTICES.

The first list of candidates for election at the Business Meeting to be held on the 3rd January was printed in the notice convening the meeting (published in the JOURNAL, 4th Dec., p. 79). The following is the second list, the candidates having been nominated on 13th December:—

AS FELLOWS (59).

- CLARKE: JOHN DANIEL [A. 1903], 25 Hyde Gardens, Eastbourne; Dams, Willington, Sussex. Proposed by S. C. Ramsey, S. D. Adshead, C. H. Strange.
- CONSTANTINE: HARRY COURTENAY [A. 1909], 82 Mortimer Street, W.1. Proposed by Alfred Burr, W. E. Riley, Ernest B. Glanfield.
- CORRIG: WILLIAM EDWARD [A. 1903], 82 Victoria Street, Westminster, S.W.1. Proposed by Fredk. Chatterton, W. H. Harrison, Melville S. Ward.
- DAWSON: MATTHEW JAMES [A. 1907], 9 New Square, Lincoln's Inn, W.C. Proposed by W. R. Lethaby, Henry T. Hare, W. E. Riley.
- ELTON: JAMES BLACK [A. 1906], The Glasgow School of Architecture, 167 Renfrew Street, Glasgow. Proposed by N. W. Harrison, Henry T. Hare, Sir Aston Webb.
- GAGE: CHARLES HENRY [A. 1901], 22 Conduit Street, W.1; 2 Cherry Orchard, Staines. Proposed by Oswald P. Milne, J. J. Joass, E. Keynes Purchase.
- HIGGS: FREDERICK ROBERT [A. 1899], New County Hall, S.E.1. Proposed by Sir Reginald Blomfield, E.A., Alfred W. S. Cross, W. E. Riley.
- HOLDEN: CHARLES HENRY [A. 1906], 28 Woburn Place, W.C.; Proposed by H. Percy Adams, Sir Reginald Blomfield, R.A., Sir John Burnet.
- KENNARD: JOHN HAROLD [A. 1910], 12 Gray's Inn Square,

- W.C.I., Proposed by W. Maithwaile, H. W. Lunn & K. Hall, Herbert W. Wills.
- KEYS: PERCY HUBERT, D.S.O. [14, 1907], Architect, New Government Buildings, Singapore. Proposed by F. Vincent Harris, R. J. Allison, C. B. E., and the Council.
- LONG: CHARLES WILLIAM [14, 1911], 24 Bloomsbury Square, W.C. Proposed by T. D. Atkinson, H. P. G. Maule, D.S.O., and the Council.
- MANSTFIELD: LESLIE [14, 1911], 33 St. James's Square, W. Proposed by Ed. J. May, C. H. B. Quennell, W. A. Forsyth.
- PIERCE: ROBERT A. R. [14, 1909], Bank Chambers, Bangor St., Canbyon. Proposed by O. Maxwell Ayton, Leslie J. May, Herbert L. North.
- STEWARTSON: ROBERT LEON [14, 1904], 22 Yuen Ming Yuen Road, Shanghai. Proposed by George Hornblower, W. Henry White, W. E. Riley.
- TROQUAIR: RAMSEY [14, 1909], Professor of Architecture, McGill University, Montreal. Proposed by Sir Robert Laing, A. R. A., James B. Deane, A. Leslie Campbell.
- WARRIN: PERCY FRANKS [14, 1908], 74 Hendon Rd., Yeovil, Ryelmour, Yeovil. Proposed by George J. Skipper, Raymond Unwin, S. B. Russell.
- WILLS: JOHN BURNHAM [14, 1909], 15 Orchard Street, Bristol. 15 Berkeley Square, Oxford, Bristol. Proposed by Sir Frank Wills, Graham C. Avery, S. D. Adshear.

And the following Licentiate's have passed the qualifying examination:

- ALEXANDER: SAMUEL GRANT, M.B.E., J.P., 17 Queen's Gate, Inverness. With a Bank, Inverness. Proposed by Alexander Ross, Herbert Rees, Wilfrid Anshie.
- ARTHUR: JOHN MAURICE, Lieut.-Col., C.M.G., D.S.O., 4 Graham Street, Ardara. Proposed by James Lockhart Alexander, N. Paterson, Wm. B. White.
- BENTLEY: ARTHUR FRED COLLINS, Dial House, Squarrels Heath, Essex. Proposed by C. Stanley Peach, Sir Aston Webb, P.R.A., Thos. E. Collett.
- BRAKE: RICHARD PATON, Promoted Architect, Edmonton, Alberta, Canada. Proposed by G. T. Brown and the Council.
- BOSWELL: GEORGE ARTHUR, 250 West George Street, Glasgow. With House, Milngavie, Renfrewshire. Proposed by John Watson, Wm. B. White, John Kippin.
- BROADBENT: FREDERICK THOMAS, Offices, Leeds. Aberdeen House, Arndley, Leeds. Proposed by H. S. Charles, W. Carley Ho., O.B.E., William H. Thompson.
- BROWN: WILLIAM FRED, 100 St. John's, Motherwell, Scotland, Lockhart, Leamington. Proposed by James Lockhart, John S. Davidson, Wm. B. White.
- BURCH: ARTHUR CHARLES, The Castle, Winchester. 48 Hatherley Road, Winchester. Proposed by R. M. Donald Lucas, J. Arthur Smith, Robert Atkinson.
- CAMPBELL: JAMES HENRY, 212 St. Vincent Street, Glasgow. 42 Riverside Road, Newlands, Glasgow. Proposed by John Watson, J. B. Wilson, Wm. B. White.
- DAYTON-PHILLIPS: HENRY D. R. C. Chambers, Mosses, Box 8, Atlanta. Proposed by the Council.
- DAVEY: GEORGE ROBERT, 14, Outer Temple, 222 Strand, W.C.2, W. House, Rushup, Middlesex. Proposed by Geo. Ernest Nield, Wm. Woodcock, H. P. G. Maule.
- DEAN: JOHN CLEGG, 31 Greenhills Road, and 122, Main Street, Cambuslang, Scotland. Proposed by James Lockhart, Arthur A. Balton, John Forrester.
- DESSAULT: LEONARD LOUIS, 39 Newland Street, Birmingham. 26 Bridge Street, Stratford-on-Avon. Proposed by James A. Swan, W. Alexander Harvey, Arthur Harrison.
- EVANS: LEONARD GRAY, 99 Leman Street, E. 1, Dukes Street, London Road, Holloway-the Hill. Proposed by Major Harry Barnes, M.P., Sir Basil de Fother, Joseph Oswald.
- FERRIER: EDMUND AUGUS, 8 Buckingham Palace Road, S.W.1; 48 Russell Gardens, Golders Green, N.W.4. Proposed by R. Stephen Ayling, Frank W. Porter, Arthur Keen.
- FLOYD: FRANCIS HAYWARD, The Market Place, Newbury, Berks; Finsbury Rectory, Newbury, Berks. Proposed by Edward Ward, M. Wheeler, Paul Waterhouse.
- FORSTER: JOSEPH, County Architect, Cumberland, The Courts, Carlisle. Kirkcubright House, Kirkcubright-Eden, Carlisle. Proposed by J. H. Marmulade, J. W. Benwell, A. N. W. Hargrove.
- GILBERT: HARRY RICHARD, Bridge Road, Leatherhead, Surrey. Proposed by Alfred W. S. G. S. S. James S. Goss, H. Austin Hall.
- GODFREY: HENRY ROBERT, 6 King's Bench Walk, Temple, E.C.4, 90 Osbaston Road, Stoke Newington. Proposed by A. S. A. S. W. E. Riley, Wm. Woodcock.
- GRANVILLE: PATRICK HAMILTON, 21 Bolton Street, Wellington, New Zealand. Proposed by the Council.
- GRANLEY: ARTHUR EDWARD, Wierka 17, Warsaw, Poland. 95 Alexandra Park Road, N. 10. Proposed by Jas. T. Clarke, R. Burns Dick, George H. Widdows.
- HARRISON: GEORGE DUDLEY, 34 George Street, Hull. 84 De Grey Street, Hull. Proposed by W. S. Walker, Henry M. Fletcher, Godfrey Pinkerton.
- HASLOCK: WILLIAM EDWIN, 143 Albert Road, Middlesbrough-on-Tees. Proposed by Robert Atkinson, E. Stanley Hall, Major C. E. Webb.
- HODMAN: GEORGE EDWARD, Lieut.-Col., 6 King's Bench Walk, Temple, E.C.4, Woodside, Buckhurst Hill. Proposed by W. E. Riley, Wm. Woodward, W. Henry White.
- HYAMS: HENRY, 6 Waterloo Road, S.E.1. Proposed by W. D. Carver and the Council.
- JACKSON: THOMAS GEORGE, 43 South Square, Gray's Inn, W.C.1. 33 Barn Road, Crisock, W.4. Proposed by George E. S. Streetham, F. T. W. Goldsmith, Edwin Collier.
- JONES: STUART, 25 St. John's Street, P. 1, Upper Woodford, P. 1, 8 St. John's Street, Proposed by E. L. M. Piles, John Slater, Leonard Winters.
- MURRAY: JOHN HERBERT, Strain, Leek, Darpoehing, Bedford, India. Proposed by the Council.
- NICHOLSON: HAMILTON, 157 St. Vincent Street, Glasgow, Glasgow, Renthall Road, Parsby. Proposed by Wm. B. White, John Kippin, William A. Thomson.
- OSBORN: FREDERICK CHURCHES REID, 15 Bishopsgate, E.C.2, 3 Castle Avenue, Putney, S.W.15. Proposed by Sir Henry Towner, C. B., Herbert A. Sutcliffe, Henry Towner.
- PALOCK: THOMAS REID, 81 St. Peter Street, Quebec, Canada. 76 De Salaberry Street, Quebec, Canada. Proposed by Vincent D. Horsburgh, J. M. Henry, A. Leslie Campbell.
- PATON: JOHN, 74 Head of Yarrow, The Grange, Yarrow. Proposed by John S. Deane, S. B. Russell, George J. Skipper.
- REYNOLDS: EDWARD LEWIS, King's Court, 117 Colmore Row, Birmingham. Hertsford, Rowington, Warwick. Proposed by C. E. Bennett, Herbert T. Buck, Frank G. Coulson, N. S.
- SANDERS: JOHN THOMAS, Lynton Gardens, Box 1, Lynton, W.2, Green Cottage, near Caversham, Oxon. Proposed by M. Mabel Smith, D. Barclay Niven, Henry M. Fletcher.
- SEAFIELD: JOHN MORRISON, P.A.S.I., 39 Bloomsbury Square, W.C.1, 150, Victoria Rd., South Hampstead, N.W.5. Proposed by A. L. Picken, J. S. G. Goss, G. W. Porter.
- SEAR: JOHN, The London Council Offices, High Street, Bocking, and Gooden Villa, Bocking. Proposed by Geo. S. Smith and the Council.

- SEWSTER: ERNEST, 29, Queen Street, Oldham, 194, Copple Street, Oldham. Proposed by Arthur W. Hennings and the Council.
- SINGLAIR: COLIN, M.A., F.S.A., (Scot.), 245 St. Vincent Street, Glasgow, 35 Clifton Street, Bellahouston, Glasgow. Proposed by Wm. B. Whittle, John Keppie, John Watson.
- SPINK: HERBERT, 52 High Street, Windsor, Broadwater, Wraybury, Bucks. Proposed by E. Vincent Harris, Sydney Tugwell and the Council.
- WALKER: WILLIAM, 81 North Street, St. Andrews. Proposed by William Williamson, W. Fleming Wilson, John Wilson.
- WALBURN: HENRY ALFRED, 22 Sadler Street, W.C.1, 12 Broadway, Woking; Elm Croft, Woking, Surrey. Proposed by John E. Sears, W. E. Vernon Crompton, Charles E. Vaindell.
- WINDSOR: FRANK, 77 Elmiston Square, S.W., 40 Coombe Road, Croydon. Proposed by Horace Gilbert, Detmar B. W. Sydney Tottle.
- AS ASSOCIATES 72
- OWNS: WALTER ALWYN COLIN, S. 1912, Special War Exemption, 23 Throgmorton Street, E.C.4. Proposed by R. Lupton Cole, Robt. C. Murray, Sir Aston Webb, P.R.A.
- LEANEFF: PERCY WILLIAM [Special War Exemption], 64 Edingburgh Road, Hulse, N.S. Proposed by Walter R. Jaggard, A. E. Richardson, C. Lover Gill.
- NOTES: ALBERT WILLIAM [Special War Exemption], 333 Nottingham Road, Old Basford, Nottingham. Proposed by H. G. Watkins, Ernest R. Sutton, A. Ernest Heazell.
- POON: CHARLES ARTHUR [Special War Exemption], 17 Oxford Road, Lis and Cheshire. Proposed by E. Bertson Kirby and the Council.
- RAMWELL: JAMES STONEXON [Special War Exemption], Royd Insurance Buildings, 9 North John Street, Liverpool. Proposed by E. Percy Hinde, E. Bertson Kirby, Haswell Grayson.
- RELLY: AUGUSTUS [Special War Exemption], 43 Galveston Road, East Putney, S.W.15. Proposed by C. Stanley Peach, S. D. Ad-lead, Alfred B. Yeates.
- RYAN: WILLIAM COOPER [Special War Exemption], 6 Waterloo Street, Hove, Sussex. Proposed by J. G. Gibbins, Philip M. Johnston, Raymond Unwin.
- SCHERRY: STANLEY VICKERSTAFF [Special War Exemption], 65 The Wells Road, Nottingham. Proposed by H. G. Watkins, Albert N. Bromley, Ernest R. Sutton.
- SEITON: EDWARD NOEL [Special War Exemption], 7 Elmfield Avenue, Leachfield Street, E.C. Proposed by Charles E. Vaindell, H. Alex. Polly, John A. Cheston.
- SENNAL: HAROLD JOHN [Special War Exemption], 55 Wilford Street, Derby. Proposed by J. Reimold Naylor, G. Hansard, T. H. Thorpe.
- SHARP: WILLIAM HICKEYSON [Special War Exemption], Donald Chambers, 237 Colpins Street, Melbourne, Australia. Proposed by Robert Atkinson, E. Stanley Hall, Maurice E. Webb, D.S.O.
- SMITH: FREDERICK CHARLES COWDLEY [Special Final Exemption], 34 Bedford Square, W.C.1. Proposed by Robert Atkinson, Sir Aston Webb, P.R.A., Charles E. Vaindell.
- STANDSON: GERALD, B.Arch., Liverpool, S. 1919, Special War Exemption, The Beach House, Hoylake, Cheshire. Proposed by C. H. Reilly, W. E. Willink, T. Tahesin Rees.
- STONESTER: JOHN AUSTIN [Special War Exemption], c/o Hucklebridge, 37 Pandora Road, West Hampstead, N.W.6. Proposed by the Council.
- TOLE: MORDECAI HENRY CASPERS, M.A. (Contab.) [Special War Exemption], 5, Southampton Street, Bloomsbury, W.C.1. Proposed by Chris. FitzRoy Doll, Andrew N. Pentrice, Ernest Platt.
- ELSWORTH: WILLIAM [Special War Exemption], 68 Romer Road, Fainfield, Liverpool. Proposed by Sidney F. Harris, C. H. Reilly, T. Tahesin Rees.
- EMBERTON: JOSEPH [Special War Exemption], c/o Sir John J. Burnett, R.S.A., 1, Montague Place, W.C.1. Proposed by Beresford Pite, Sir John Burnett, Robert Atkinson.
- EVANS: ERIC EWART [Special War Exemption], 30 Park Road South, Cloughton, Cheshire. Proposed by W. E. Willink, T. Tahesin Rees, E. Percy Hinde.
- FERIS: JOHN LAURENCE [Special War Exemption], Windogney, Westmoreland. Proposed by C. H. Reilly, A. N. W. Hodgson, G. Reavech.
- FORDIE: ALEXANDER GARDEN [Special War Exemption], 33, Summerside Place, Leith. Proposed by F. W. Deas, Jno. Watson, James Thomson.
- FOWLER: CYRIL WILLIAM [Special War Exemption], 14 The Vale, Golders Green, N.W.2. Proposed by Edwin Cooper, F. T. W. Goldsmith, Herbert Widdows.
- FRANCIS: BERNARD THOMAS [Final Exemption], 32 With Street, Upper Dale Road, Derby. Proposed by George H. Widdows, Frederick Wheeler, A. Jessop Hardwick.
- FRIDGELY: GEORGE BOWEN [Special War Exemption], 52 Alexandria Road, Croydon. Proposed by Charles E. Vaindell, Robert Atkinson, E. Stanley Hall.
- GOODEY: FREDERICK WILLIAM [Special War Exemption], 695 Fulham Road, S.W.6. Proposed by A. Saxton Snell, Beresford Pite, E. Stanley Hall.
- GOODEY: WILLIAM ARTHUR [Special War Exemption], St. Albans Grove, Musgrave Road, Durham, N.E. Proposed by the Council.
- GOODEY: WILLIAM JOHN HENRY [Special War Exemption], 14 Russell Road, Sefton Park, Liverpool. Proposed by C. H. Reilly and the Council.
- HALFHEDE: FREDERIC WILLIAM [Special War Exemption], 48 Thrale Road, Streatham, S.W.16. Proposed by Henry Tanner, Charles E. Vaindell, Percy W. Meredith.
- HALL: GEORGE LANGLEY DESMOND [Special War Exemption], 1 Victoria Street, Westminster, S.W.1. Proposed by H. G. Gifford, Edwin T. Hall, George A. Hall.
- HAMELYN: WILLIAM HENRY [Special War Exemption], 62 Roxborough Road, Harrow, Middlesex. Proposed by Sir Reginald Blomfield, R.A., Ernest Newton, R.A., Sir Aston Webb, P.R.A.
- HARRIS: FRANK CHAMBERS [Special War Exemption], c/o New Zealand High Commissioner, 415 Strand, W.C. Proposed by S. Hurst Seager, Walter Cave, Frank T. Verity.
- HARRIS: LESLIE YOUSSEMAN, S. 1911, Special War Exemption, Clinton Terrace, The Park, Nottingham. Proposed by Albert N. Bromley, H. G. Watkins, Robert Evans.
- HILL: GLOTFREY WALKER, S. 1912, Special War Exemption, Daw Cross, Parnall, near Harrogate. Proposed by Archibald Neill, William H. Thorp, H. S. Cherley.
- HOWARD: CHARLES VINCENT [Special War Exemption], c/o Bank of New South Wales, 29 Threadneedle Street, E.C. Proposed by Robert Atkinson, E. Stanley Hall, Maurice E. Webb, D.S.O.
- JONES: ROBERT DAVID [Special War Exemption], Mynyddon, Borth-y-gest, Portmadoc, N. Wales. Proposed by Joseph Owen, Richard Hall, C. H. Reilly.
- LANGRISH-TOYLE: FREDERICK CHARLES, S. 1912, Special War Exemption, 17 Woodside Road, Wood Green, N.22. Proposed by W. Ralph Low, E. Stanley Hall, Robert Atkinson.
- LAWRIE: WILLIAM GRINGAY [Special War Exemption], "Toronto," Martin Street, Crow's Nest, North Sydney, N.S.W. Proposed by Robert Atkinson, E. Stanley Hall, Theodore Fyfe.
- LAWS: HOKACIE HERBERT [Special War Exemption], 31 The Avenue, West Ealing, W.13. Proposed by William A. Pite, Beresford Pite, H. P. Burke Downing,

- LAWSON: PHILIP HUGH [Special War Examination], 6 Shavington Avenue, Chester. Proposed by C. H. Reilly, A. E. Powles, Edgar Quiggin.
- LEWIS: HORACE MERSHAM [Special War Examination], The Pollards, Wokingham. Proposed by Samuel J. Newman, Geo. W. Webb, Chas. S. Smith.
- LEWIS: WILLIAM JOHN [S. 1911, Special War Exemption], 12 Toronto Road, Hford, Essex. Proposed by Jno. Stuart, Hurley R. binson, Alfred J. Dunn.
- LOVEDAY: WILLIAM TAYLOR [Special War Examination], 28 Albert Street, Rugby. Proposed by Albert E. Sawday, Howard H. Thomson, W. Talbot Brown.
- LOW: SIMPSON [Special War Examination], Woollea Dyce, Aberdeenshire. Proposed by A. Marshall Mackenzie, J. A. O. Allan, G. L. Watt.
- MCCALLUM: MALCOLM SINCLAIR [S. 1913, Special War Exemption], The Lodge, Cullen, Banffshire. Proposed by J. Lochhead, Wm. B. White, John Watson.
- MACFARLANE: GEORGE GORDON, B.Sc., M.C. [Special War Examination], 5, John Street, W.C.1. Proposed by Sir John Burnett, Raymond Unwin, H. Percy Adams.
- MACKINTOSH: WILLIAM [Special War Examination], 20, Willoughby Place, Hampstead. Proposed by W. A. Forsyth, H. P. G. Monk, D.S.O., Herbert Read.
- MARE: EDMUND TOWNLEY [Special War Examination], c/o Sir John J. Burnett, 1, Montague Place, W.C.1. Proposed by Sir John Burnett, Robert Atkinson, Arthur J. Davis.
- MARTINDALE: CHRISTOPHER JAMES FAWCETT [Special War Exam.], City Engineer's Office, 39 Fisher St., Carlisle. Proposed by Harry Redburn, F. M. Simpson, Harry Sir.
- MITCHELL: ANDREW M. M. [S. 1912, Special War Exemption], 4 Steward Road, Forest Gate, E.7. Proposed by Horace Gilbert, Arthur Barrett, A. Saxon Snell.
- MOERDIJK: GERARD LEENDERT PIETER [Final Examination], Box 6614, Johannesburg, S. Africa. Proposed by Frank Emley, W. H. Shackel and the Council.
- NEWBICK: FREDERICK HUBERT [Special War Examination], 15 Grace Terrace, Sunningdale. Proposed by Thos. R. Milburn, W. Milburn, Geo. T. Brown.
- NORBURN: GEORGE BERTHA EDWARD [Special War Exam.], Maltman's Mill House, Stratton. Proposed by W. A. Pitt, A. E. Richardson, Bernard Matthews.
- PATON: ARCHIBALD CAMPBELL [S. 1920, Special War Exemption], 44 Ashley Street, Partick, W. Glasgow. Proposed by John Keppel, Alexander N. Paterson, John Watson.
- PEARCE: OSWALD DUNCAN [Special War Examination], 8 Highbury Hill, N. 5. Proposed by Sir Reginald Blomfield, R.A., H. Edmund Mathews, Arthur B. Moore.
- PETERS: THOMAS JAMES [Special War Examination], 14, Harrington Street, Newcastle-on-Tyne. Proposed by R. Burns Dock, J. H. Morton, Charles S. Errington.
- PITE: ROBERT WILLIAM [Special War Examination], 13 Elm Grove Road, Edin., W.5. Proposed by Bressford Pitt, W. A. Pitt, H. P. Burk, Downing.
- REID: HERBERT HENRY [Special War Examination], 16 Burnett Place, Aberdeen. Proposed by J. A. O. Allan, A. Marshall Mackenzie, George Watt.
- ROSS: WILLIAM ALEXANDER [Special War Examination], 15 Felix Avenue, Crouch End, N.8. Proposed by A. E. Richardson, C. Lovett Gill, Alfred Cox.
- ROUSE: EDWARD HENRY [Special Final Examination], Hankow. Proposed by W. H. Hobday and the Council.
- RUDMAN: WALTER, M.C. [Special War Examination], 53 St Mary's Street, Chippenham, Wilts. Proposed by E. Stanley Hall, Edwin T. Hall, W. H. Watkins.
- SHATTOCK: LAWRENCE HENRY [Final Examination], 4 Crescent Road, Wimbledon, S.W.19. Proposed by S. D. Adhead, C. Lovett Gill, Stanley C. Ramsay.
- SPENCE: WM. NELDHAM [S. 1914, Special War Exemption], "Lathgow," Oakley Rd., Ranelagh, Co. Dublin. Proposed by Fred G. Hicks, Frederick Batchelor, Albert E. Murray.
- STEPHENS: PHILOMORUS EDWIN [Special War Examination], 46, Chapel Street, Penzance. Proposed by the Council.
- STEVENS: FREDERICK JOHN, S. 1912, Special War Exemption, School House, Wellclose Square, E.1. Proposed by H. W. Hotherington Palmer, Percival M. Fraser, T. Lawrence Dale.
- SUNTER: MICHAEL CALVERT [Final Examination], 15 Holland Road, Chorlton-cum-Hardy, Manchester. Proposed by J. W. Beaumont, Isaac Taylor, Paul Ogden.
- SYNNOT: RAYMOND, M.C. [Special War Examination], Australasian Pioneers' Club, Sydney. Proposed by Robert Atkinson, E. Stanley Hall, Maurice E. Webb.
- THOMAS: EDWARD JOHN [S. 1910, Special War Exemption], Brynhenb g, Henlled, near Cardif. Proposed by Edwin Seward, John H. Phillips, Geo. E. Halliday.
- VERGLETTE: ROBERT GEORGE [Special War Examination], 7 Walter Road, Swansea. Proposed by Robert Atkinson, E. Stanley Hall, C. E. Vaindell.
- WATSON: HAROLD [Special War Examination], Newall Carr, Otley, Yorks. Proposed by William H. Thorne, J. Wright Cannon, Sydney D. Kitson.
- WELSH: STEPHEN [Special War Examination], 54 Yeaman Street, Dalfur, Scotland. Proposed by C. H. Reilly, John Watson, Wm. B. White.
- WHARE: HENRY FRANCIS [Special War Examination], 109, Colman Street, Hull. Proposed by the Council.
- WILSON: PERCY [Special War Examination], "Sparslands," Arzyle Road, Southampton, Lancs. Proposed by Edgar Quiggin, C. H. Reilly, Charles W. Harris.
- WINDER: RICHARD HENRY, M.A. [S. 1920, Special War Exemption], 254, Waterloo St., Oldham. Proposed by Isaac Taylor, Frank E. Dunkerley, Edward Hewitt.

AN HONORARY FELLOW.

CRAWFORD AND BALGILES, THE RIGHT HON. THE EARL OF, 7 Audley Square, W. Proposed by the Council.

AN HONORARY ASSOCIATE.

UPESWELL: KEPPEL ARCHIBALD CAMERON, M.B.A.S., Inspector of Ancient Monuments, Palestine, Military Governor, Jerusalem. Proposed by Martin Shaw Buzes, Frederick Chatterton, and the Council.

NOTICES.

The FIFTH GENERAL MEETING (BUSINESS) of the Session 1920-21 will be held Monday, 3rd January, 1921, at 8 p.m., for the following purposes:—

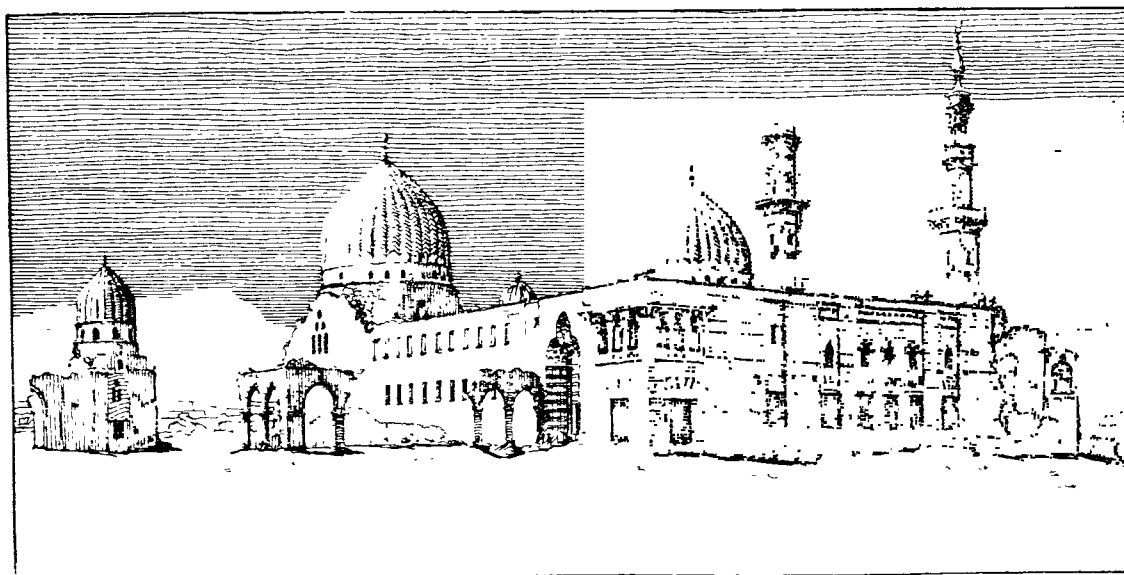
To read the minutes of the meeting held 13th December 1920; formally to admit members attending for the first time since their election.

To proceed with the election of the candidates for membership whose names were published in the notice convening the meeting (*JOURNAL*, 6th Nov. (pp. 22-24), and 4th Dec., p. 79); also of those whose names were published in the *JOURNAL* for 20th Nov. (pp. 46-48) and again in the present issue (pp. 109-112).

MR. GOULD WILKS, of 36 Embury Row, enquires of obtaining office accommodation, or would share a suite of rooms with another.

ARCHITECT aged 25 to 30 years (unmarried), required for Baghdad. Salary, £500 to £1,000 (pence) per month. Passes paid, free quarters and medical attendance. Must be expert draughtsman, good at details, materials chiefly brick and concrete. Exceptional opportunity for advancement for a pushing, capable man. Three years' agreement with usual notice. Write (not call) for appointment to Messrs. Attrial and Grogg, Architects, Imperial Buildings, Kingsway, W.C.2.

MR. R. B. A., at present in London, would like to meet a architect willing to assist him in Singapore. Good prospects. Not required to leave immediately. Commencing salary by arrangement. Address Box 132, Secretary, R.I.B.A., 9, Conduit Street.



CAIRO. MOSQUE OF SULTAN BARQUQ, *extra muros* (1400-10). M S E del.
 (From the same author's *Through Egypt in War-time*. By permission of Messrs. Fisher Unwin, Ltd.)

SARACENIC ARCHITECTURE IN EGYPT AND PALESTINE.

By MARTIN S. BRIGGS [F.].

Author of *In the Heel of Italy*, *Baroque Architecture*, *Through Egypt in War-time*, and *Continuation-School Buildings in Germany*.

Read before the Royal Institute of British Architects, Monday, 13th December 1920.

IT is a long time since a Paper on Saracenic architecture, under that or any other name, was read at this Institute, and a word of justification for the choice of such a subject may be thought necessary. I have ventured to treat of an historical style which many of you will consider unfashionable, and which all of you will regard as useless, for two good reasons: first, because Britain has recently been very intimately concerned with the countries where the chief school of Saracenic art had its home; and, secondly, because during the past few years hundreds of thousands of untravelling Englishmen have seen a mosque for the first time in their lives. The unexpected honour of the presence this evening of our distinguished guest, the Emir Faisal, lends local colour to my subject, and to those of you who saw snow—as I did yesterday—for the first time for five years, it may be pleasant to think for an hour of the brilliant sunshine and the warmth of the East. I do not pretend that I can advance any startling and therefore attractive new theory of the origin and nature of Muslim art. Nor is there in this Paper any attempt, direct or indirect, to add another to the miserable series of “revivals” that have strangled the development of our national architecture for so long.

My Paper is no more than a simple study of an exotic style unfitted in every way for adoption in our country and in our century, but it is topical in the sense that the subject has perforce been in the minds of many of us during the War. Saracenic architecture was a product of the Muslim faith, in a semi-tropical climate, during the Middle Ages. It must, therefore, be judged only under these conditions, not in regard to its suitability for Christian worship, for northern latitudes, or for modern habits of life. It must be seen through Oriental eyes. But even to the student of Gothic architecture in Europe it has some importance, for the origin of some of the forms that are most familiar to us in our ancient buildings—notably the pointed arch—is attributed to the Arabs, and during the close intercourse between Crusaders and Saracens in the XIIth century many architectural features changed hands. Lastly, it must not be forgotten that in the early part of the VIIIth century the great victorious army of the Saracens reached a point in France 200 miles from the shores of England, and that only the Battle

of Tours prevented this country and all Northern Europe from coming under the sway of a power that stretched from China to Morocco.

Many of you will remember listening to a Paper, read here a few years ago, by the late Mr. March-Phillipps, a very able lay-critic of architecture, with whom certain distinguished members of this Institute have had many a passage-at-arms. His delightful book of essays—*The Works of Man*—on various architectural periods, contains one chapter entitled "The Arab in Architecture." Now Mr. March-Phillipps is one of the very few writers on our art whose books do not depend chiefly on their illustrations. Mr. Geoffrey Scott's brilliant work—*The Architecture of Humanism*—is another example, and many of Ruskin's architectural essays are readable on their literary merits alone. But without in any way depreciating the splendid plates that form the most valuable part of modern architectural books, I wish to draw your attention to the illustrations in this book, *The Works of Man*. The first edition contained only a very appropriate frontispiece. But in a later edition the author was persuaded or bullied by his publisher, or induced by an error of judgment on his own part, to add a score or so of pictures, and for his Arab chapter he selected three subjects illustrating the worst features of the style, especially one view of arching in the Great Mosque of Cordova. This is one of the most extravagant examples of Moorish design extant, hardly paralleled except possibly in India, yet round this plate he weaves so hostile a criticism of Arab art that even the charm of his writing cannot force every reader to accept it without protest. A similar treatment of Berberque would give us Borromini as its chief exponent, neglecting all the dignity and grandeur it possessed in more restrained hands. And just because I have generally found this writer so stimulating in his criticisms of other architectural periods, though I disagree with him very decidedly here, I venture to quote his opinion of Arab art as a text for my Paper to-night.

"Arab architecture," he writes, "is the best presentment of Arab character that remains to us. No historical evidence can furnish forth to the understanding a likeness of the man so expressive as this architecture offers to the eye. Yet its significance is apt to be overlooked, and overlooked usually for the same reason. Between almost all the books dealing wholly or in part with Arab and Moorish art which have passed through my hands during the last year there exists, under all differences of treatment and style, one fundamental resemblance. They almost all regard Arab architecture from the same—namely, from the romantic—standpoint. They almost all, that is to say, treat it not as a subject possessing a definite meaning, and capable of rational explanation, but as an opportunity for exercising those sentimental and poetic feelings in which it is always so pleasant to indulge. Its fascinating associations, its strange and unfamiliar aspect, its loneliness and desolation, its gardens, nightingales, and orange-blossoms, invite us perpetually to poetry and tears. . . .

"This is the temper, romantic rather than rational, in which the examination of Arab architecture is usually conducted, and what I wish to point out is that, however effective the result may be from the literary point of view, such a treatment ignores altogether one very powerful source of interest which Arab architecture possesses: the interest, I mean, which belongs to it as an interpretation, quite literal, exact, and reliable, of Arab character. In its eager inventiveness, in the capricious changes, complications, and inflections of its designs, in its impulsive energy, and, above all, in its inherent weakness and instability, there is depicted in this style, if we would but coolly and rationally examine it, a visible representation of the Arab as we know him in history, or as he is to be met with to-day in the flesh in those deserts to which the progress of more stable races has once again relegated him. The stamp and impress taken of him by these eccentric arches and purposeless entanglements of tracery are the stamp and impress which he gave to all his undertakings. His impetuous yet ill-sustained campaigns have this character: his so-called civilisation, so imposing yet so fugitive, has it: all his scientific and intellectual achievements, informed with vague visions and transcendental guesses, have it: above all, the man himself, full of fiery, short-lived and contradictory impulses, is the incarnation of it."

Mr. March-Phillipps is unfortunately dead, so that he can no longer defend his theories against the lumbering criticism of architects with the courtesy and wit that he always brought to these encounters. I hope, therefore, that those of you—and there must be many—who know his work will agree that my summary of his argument is fair and just, for that is the least we owe to his memory.

After the passage that I have just quoted in full, he proceeds to analyse the character of the Arabs, as he reads it in the record of their sensational military conquests during the early centuries of their history, and finally condemns it as a combination of frantic energy and fickleness, of weakness and instability. The victories of the Saracens he regards as showy and barren of result. But, without venturing far into the region of controversial history, there is surely much that he leaves unsaid in this presentation of his case. He says nothing of the enormous driving force of Islam, the great religion that is still one of the most potent factors in the world to-day. I have just read this sentence in a book by a Christian missionary who has spent his life in working among Muhammadans in Northern Africa: "When Islam once takes hold, it becomes almost impossible, humanly speaking, to dislodge it."

And in Africa, at any rate, Islam is gaining converts far more rapidly than Christianity. Does Mr. March-Phillipps imply that Islam is weak, or fickle, or unstable—after thirteen centuries? Yet it was the power of Islam, rather than anything in the Arab temperament, that brought Saracenic architecture into being.

He speaks of the Arab invasion of Europe as a whirlwind from the desert, as a wild charge of motley savages ignorant of discipline, of supplies, of transport, or of lines of communication. He does not tell us that the defeat at Tours occurred a century after the first westward advance from Arabia, or that the Saracens in Spain had their base at Damascus. He tells us that the average Crusader was a match for four or five "infidels," but does not explain why the Saracens finally drove the Crusaders out of Palestine. He says nothing of the exploits of Saint Louis of France at Damietta.

From this historical survey he passes to an examination of Arab intellect, and argues that the omission—in the books of Symonds and Pater—of any reference to Arab influence on the Renaissance movement in Europe shows that Arab science and philosophy was of no account, that their chemistry had become debased with alchemy, their astronomy with astrology. I hesitate to venture on to such debatable ground, but perhaps there is some scholar here to-night who can tell us whether algebra and chemistry owe nothing more to the Arabs than their names, and whether the science, the mathematics, the faience and metalwork, and the philosophy of the Renaissance were in any way influenced by the schools of Saracenic thought. "The whole Arab episode," says Mr. March-Phillipps, "dropped out of the life of Europe" like a dream. For the Arab had no reasoning faculty like the northern nations. He was a creature of blind impulses, of hasty and ill-regulated passions.

And finally he proceeds to interpret Arab architecture as a reflection of these characteristics in the temperament of the race—furious energy, fickleness, weakness, and instability. He begins by quoting Fergusson, to the effect that "the Arabs had no architecture, properly so-called"—surely a curious statement to advance in support of a violent attack on that very architecture. According to him they were incapable of any creative art themselves, so they borrowed, from each country that they conquered, the skill of its native craftsmen. Yet at the same time he stigmatises them as iconoclasts who destroyed every beautiful thing that they found, casting away the dignified arches and vaults of the Romans, the massive columns and lintels of the Greeks. Yet while helplessly leaning on native artists with one hand and tearing down all the glories of native art with the other, they somehow contrived (in spite of their weakness) to force upon the reluctant civilisations of the past certain novel features of design which caused these old-fashioned arches and lintels—so he tells us—"to buckle and bend in all directions like a child's toys"!

He does not tell us that the chief reason for breaking away from the traditional architecture of the Copts, the Syrians, and the Byzantines—all Christian nations—was an essentially religious one.

that in the architectural forms of the mosque as well as in its arrangements it was desired to avoid any similarity to the details of a Christian church. But just as the early Christians themselves at first avoided the pomp of the Pagan temple-style, and finally swallowed it whole, so the Arabs, a race of warriors, eventually found it convenient to make use of the trained Christian crafts-men in the rich towns that they conquered. As iconoclasts they had no blacker a record than the Christians, and an impartial reading of the history of Jerusalem does not increase our admiration for the Crusaders when massacres and mosque-burnings are in question.

His generalisations are altogether too sweeping, and one proceeds with some relief to his more detailed examination of the Saracenic—or, as he calls it, the Arab—style. First and foremost is the debasement in the form of the arch. These are his words:—

“ Stilted arches, horse-shoe arches, pointed arches, ogive arches, arches curved and foliated and twisted into a thousand nameless and inexplicable designs, arches inverted and standing on their heads, arches with *voussoirs* elaborately tangled and interlaced—such are a few of the varieties which occur more or less freely in all Arab buildings.”

Even if this statement were confined to Spain and India, where Saracenic art appears in its most florid forms, it would be a gross exaggeration, but applied to Arab architecture in general it is utterly baseless, and is especially untrue of Egypt and Syria, where the purest forms are found. The characteristic arches of the Saracens—the horseshoe arch in two varieties, the Persian or keel arch, the uncommon cusped arch, and the ordinary semicircular and pointed forms—will be mentioned later in this Paper, as also the elaborate joggled *voussoirs* found in the later periods in Cairo and elsewhere.

His second criticism arises from the first just quoted, but is more readily admissible. He maintains that these new and debased arch-forms are structurally unsound, and frequently require lateral support by means of iron or wooden ties. Here he does indicate a real defect, to which I shall return later, but he does not mention that this practice was probably due to the prevalence of earthquakes.

His third point for condemnation is the frequent use of antique marble columns as supports for the ranges of arcades found in many of the mosques. Yet he omits to state that this practice, questionable rather than reprehensible, was not adopted generally, as he implies, but only in a limited number of buildings.

He next claims that the geometrical patterns used so largely in Saracenic ornament are restless to the eye, and thus furnish another example of the fevered spirit of the desert. But those scholars who have made a special study of this geometrical ornament have come to the conclusion that it is based on a mathematical system such as delights the contemplative Oriental mind, while others see in them a mystical interpretation. However this may be, it is quite certain that this Saracenic ornament—far from being hurried and slapdash, as Mr. March-Phillipps would have us believe—is executed with the amazing patience and skill of the Eastern craftsman, in fact, with a delicacy unequalled in the whole history of art.

Lastly he states that the masonry is slovenly, the joints wide, the mortar bad: that there is no dignity in the ruins of Cairo; that the buildings fall to pieces because so hastily put together: and that behind all the profuse ornament there is no stability. I cannot believe that any person who knows the mediæval monuments of Cairo at all thoroughly would support such a statement. The masonry of the mosques from the end of the XIth to the beginning of the XVIth century—i.e., the whole period of Arab masonry construction—in Cairo is conspicuous for its excellence. The joints are fine, the mortar certainly adequate for such a climate, where resistance to frost and rain is hardly worthy of consideration. And the mediæval remains of Cairo are probably more numerous and in better preservation than those of any city in Europe. The walls, the gates, the Citadel, hundreds of mosques, numerous houses, still stand: surely there is no other city where so much survives to tell the story of the past. Cairo had no rival in Egypt during the Middle Ages, and the great cities of Syria—Jerusalem, Damascus, and Aleppo—were always of inferior importance, except in the early centuries of Arab

dominion, when architecture had not yet attained the level that it reached under the Mameluke sultans of Cairo. Moreover, all the Syrian cities were continually exposed to "religious" and other wars which destroyed most of the religious buildings that would otherwise have survived.

I have endeavoured to present the case advanced by Mr. March-Phillipps, against "The Arab in Architecture," with absolute fairness, and to point out wherein it appears to me to fail. He himself demands that criticism of this difficult style should be rational and not romantic: yet surely rational criticism should be judicial and based on the average qualities of the buildings criticised, not on isolated examples carefully selected to support a theory which though not exactly romantic is highly imaginative. I now turn to a very brief, and as far as possible impartial, survey of the architecture of the Saracens in Egypt and Palestine, with a view to attempting an unbiassed judgment of its merits and defects. It will be illustrated by slides made from my drawings, and where possible from my photographs.

II.

Critics have raged for many years over the name and the origin of this architectural style. There is a choice between three terms—"Arab," "Saracenic," and "Muslim" (or "Muhammadan"). The first was chiefly used by the French writers of last century who did so much to popularise and expand the style—Prisse d'Avennes, Bourgoïn, Gayet, Coste, Girault de Prangey—also by Professor van Berchem and by a few Italian and English writers. It has also received official sanction in the name of the *Musée Arabe* in Cairo, and in that of the *Comité de Conservation des Monuments de l'Art Arabe*—the office in Egypt that fulfils the same function as our Ancient Monuments Commission. The name implies the art that was produced under Arab dominion. But it has been severely criticised in certain quarters on the ground that the Arabs themselves in the early—or "whirlwind"—days, when they swept from the Hijaz across Western Asia, Northern Africa, and Spain, were uncivilised barbarians, carrying with them, as Rivoira says, "only the scimitar and the Koran," and depending entirely on the talents of native craftsmen in the conquered countries for their architecture.

The chief supporters of the name "Saracenic" are two Englishmen, of such authority on the period that their opinion is valuable—Fergusson and Lane-Poole. The latter has defended his view very ably, pointing out that it is an ancient name of uncertain derivation, given during the Middle Ages to the wild tribes of the Eastern deserts. Gayet makes fun of it as a nickname, suggesting that if this term—signifying no more than a band of brigands—is to be used as a serious title for an architectural period, we might, on the same analogy, describe French architecture of the age of Louis Treize as *mousquetaire*. But England has accepted "Gothic" and "Baroque," both originally nicknames, as architectural terms, and it must be remembered that a word which at first may have been indefensible does, after the usage of centuries, pass into our vocabulary as good English.

It is for this reason that I have hesitated to adopt for my subject the title which has of late found favour among the most learned authorities—"Muslim" (or "Muhammadan") architecture. It has been used by M. Saladin in France, by Comm. Rivoira in Italy, by Franz Pasha in Germany, by Strzowski in Vienna, by Creswell in Cairo, and by many other writers. It implies that in all this architecture, from Turkestan and India to Spain and Morocco, there is a common religious basis. But it does not yet convey to the ordinary English reader, as does the word "Saracenic," the special meaning of the art of those countries—Syria and Egypt—where the Crusaders fought and where they familiarised this nickname, if such it be. Nor does it seem correct to speak of a "Muhammadan" dwelling-house in Cairo or a "Muhammadan" castle, any more than it would be appropriate to describe Waterloo Station in London, or the *Folies Bergères* in Paris, as "Christian" buildings.

I hope that some of the eminent scholars who are here to-night will give us their views on this question, as I am anxious to find a really definite title for a book of mine, on the subject of this lecture, which is to be published shortly. The photographs and drawings displayed round these walls have been collected for illustrations, though the collection is still far from complete.

III.

Even more violent controversy still rages over the origin of Saracenic art between defenders of various theories, each diametrically opposed to all the others. Broadly speaking, it may be said that Gayet attributes it to Coptic Egypt, Strzowski to Byzantium, Rivoira to Rome, Dieulafoy to Persia, and Havell to India. Seats astride the fence are occupied by Fergusson, Lane-Poole, and Saladin, and I hope that the same safe if inglorious perch will bear my slender weight in addition, but there is no time to-night to venture on to so difficult a topic.

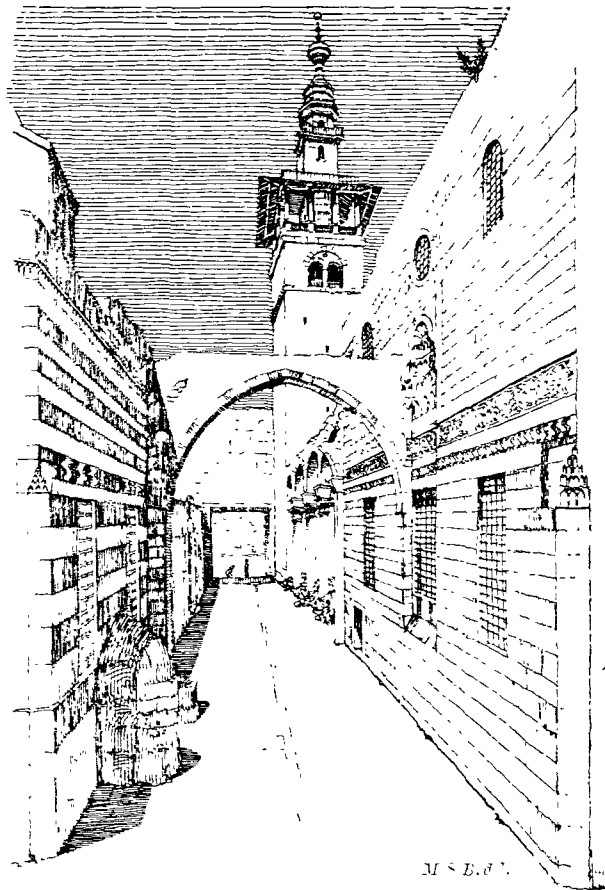
The first mosque was built by Muhammad at Medina in A.D. 622 and was a primitive enclosure or yard with low walls. Adjoining were bare apartments for the Prophet and his wives, also a well. The roof was of palm-trunks and mud. Later a portion of the enclosure was covered with a similar roof, to form a shelter from the fierce rays of the sun, and finally this feature was extended round all four sides of the court. Then there was evolved a *kibla* or point in the wall towards which worshippers had to face when they prayed. This came to indicate the direction of Mecca, and the *kibla* wall was distinguished by a semi-circular niche—the *mihrab*—the origin of which is a bone of contention. It may have sprung out of anything from a Christian apse to a Buddhist image-niche, or even out of the brain of some pious Muslim craftsman. In the fulness of time Muhammad added a primitive sort of wooden pulpit, the *mimbar*, of which again the origin is uncertain. But in spite of this absolute lack of anything approaching architecture, as we understand it, in this elementary structure, it already contained the essential features of the mosque plan: the square open court or *sahn* with a covered portico or *liwan* on each of the four sides, the *mihrab* or prayer-niche on the *kibla* wall, the *mimbar* or pulpit adjoining, and some provision for ceremonial ablution. But the most striking feature of the mediæval mosque—the minaret—was a later addition, and was instituted to allow the *muezzin's* call to prayer to be heard over a wide area, without recourse to the bells used by the Christians. At first it was a rough tower without any grace of form.

Within a few years, as the conquerors swept east and north, other mosques were built, notably at Mecca, at Cairo, at Kairawan in Tunis, and two at Jerusalem. Of these I will only touch on one of the last-named, because the other examples have been so often rebuilt and so much altered that they have practically lost their original appearance and therefore only confuse a study so necessarily brief as this is.

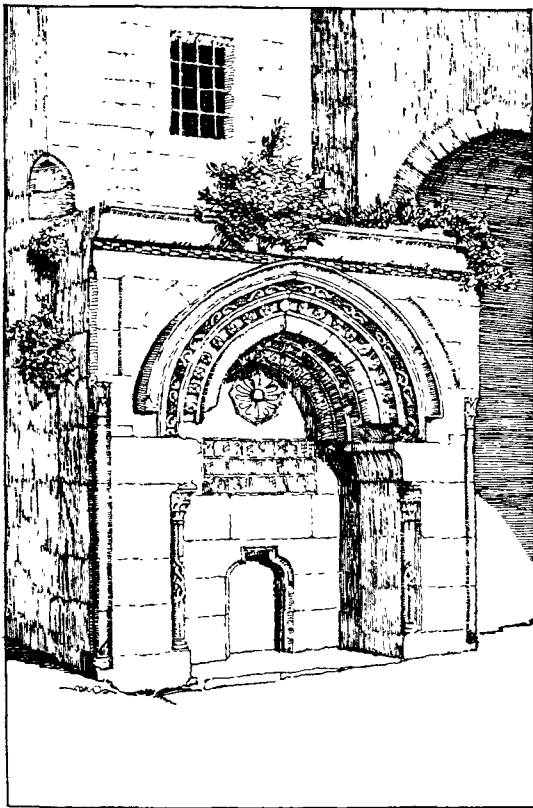
The Kubbet as-Sakhra ("Dome of the Rock") at Jerusalem, commonly called the "Mosque of Omar," was erected shortly after the Arab conquest of the city in 639. Among the chief buildings of the Saracens it displays more than any other the strength of Byzantine influence, and for this reason it is not typical of the style. Whereas the normal mosque was planned as a place for congregational worship, the "Dome of the Rock" was primarily a shrine, under which lay the ancient rock that was believed to be Abraham's altar of sacrifice. The object of the Saracens in venerating this spot is easily understood, for it provided an alternative to Mecca as a place of pilgrimage, and from the beginning the early Muslims had much sympathy with the Jewish faith. The site was already revered by the Jews as the site of Herod's demolished temple, and was suited by nature to its purpose. Indeed, as we see it to-day, the Haram esh-Sherif, or sacred enclosure, provides this mosque with a finer setting than any existing Arab monument, and is without any rival even in Cairo, where all the mosques lie either in crowded and narrow streets or on the desert. Externally the building is of octagonal form with four porches. Within the outer wall is a wide aisle, then another octagon formed of piers and columns. From the columns spring semi-circular arches or *dossereets*, and ties are used across the springing. Another circular range of columns carries the dome. Professor Lethaby regards this as a Hellenesque building imbued with Byzantine influence, whereas Rivoira attributes the plan, like everything else in Arab art, to Rome. It is uncertain whether the interior structure remains unaltered, also whether the range of large external windows is a later work, but it is quite certain that the magnificent tile casing of the exterior dates from the XVth century.

The great Umayyad mosque at Damascus is like the last-named building, a highly controversial subject. It was erected early in the VIIIth century on a site previously occupied by a Christian church, earlier still by a pagan temple. Damascus had by this time replaced Medina as the capital of the Arab Empire, then at its greatest extent. But though archaeologists have been chiefly concerned as to the relative positions of the temple, the church, and the mosque, an architect finds it important for three main features: i. the principal or *Mecca hwan* enclosed on all sides instead of being open as usual to the *sahn*; ii. the round horse-shoe arches used here for the first time in the history of Saracenic art; iii. the *Madinat al-Arus*, the oldest surviving minaret in Syria, probably of the XIth century. No important monument survives from the century and a half following the Great Mosque at Damascus.

We may now turn to the famous mosque of Ibn-Tulun in Cairo, built 876-879, for Cairo was



DAMASCUS THE GREAT MOSQUE THE MADINAT AL-ARUS.
(Probably XIth Century.)



JERUSALEM FOUNTAIN (*Qistal*) IN STRLET OF EL-WAD
(Probably XVIth Century, but showing influence of Crusaders)

now a large city, the seat of the governor of Egypt, Ibn-Tulun, formerly a Turkish slave in the service of the Caliph of Baghdad. His mosque is perhaps the most noteworthy building in the whole history of Arab art. In plan it follows closely on the Mecca model, with a great central court, *hwans* on each side—that facing Mecca and containing the *mimbar* and *mihrab* being the widest—and a remarkable “cork-screw” minaret. The latter is almost certainly copied from the old Malwiya mosque at Samarra near Baghdad, erected in 846-852, and the Samarra plan also has points in common with the Cairo plan. Ibn-Tulun spent some time at Samarra during his military training, and his mosque at Cairo is as certainly Mesopotamian in type as the “Dome of the Rock” is Byzantine. The use of burnt brick is Mesopotamian. The battlements round the *sahn* are of Sassanian type, and there are cusped niches at

Samarra just like those at Cairo. But most important of all is the use in this mosque, for the first time in a really constructional form in architectural history, of pointed arches, resting on massive brick piers with engaged shafts at the angles. Here we see an absolutely new method of building—long arcades of pointed arches, slightly horse-shoe in form, built of burnt clay bricks, covered with fine plaster, and decorated with ornamental roundels.

From the time of Ibn-Tulun there is another long hiatus in the list of noteworthy buildings surviving to us. Then under the dynasty of the Fatimids (969–1171) certain developments took place in mosque building. The mosque of Al-Azhar (970) in Cairo is familiar to most tourists as the seat of the picturesque Egyptian "University" (so-called), but of the original building little more than part of the arcades remains, with Persian or "keel" arches, a form used more freely in Persia and Mesopotamia than in Egypt or Syria. Both this mosque and that of Al-Hakim (990) not far away were great "congregational" mosques, like that of Ibn-Tulun, planned to accommodate the whole population of Cairo for the Friday prayers. In 1085 was built the curious little mosque of Al-Guyushy on the wild hills above Cairo. It is constructed of stone with a simple domed minaret, very like contemporary examples in Sicily, and over the principal *lucan* is a larger dome carried on niche-pendentives. It was built by the commander-in-chief of the Egyptian army, an Armenian by birth. He also built a large part of the present walls of Cairo, including several of the gates, and in these, as in his mosque, we see the introduction of elaborate masonry and vaulting, as well as of the Byzantine science of fortification. The small mosque of Al-Aqmar (1125) shows the first façade-design, as well as the first known use of that extraordinary and most characteristic feature of the Arab style, "stalactite" ornament.

The period of Saladin and the Crusaders was marked by further progress in military architecture, masonry, and dome construction. The Citadel at Cairo, commenced by Saladin in 1176, was no doubt influenced by the fortresses of the Crusaders in Palestine, and that at Aleppo, a composite structure, maintains the same tradition. The mark of the Crusaders is equally to be seen in the streets and fountains and gates of Jerusalem that the Saracens erected centuries later, and a comparison of these buildings with typical Crusader churches leaves no room for doubt as to the importance of this intercourse. *[Here followed a number of lantern slides showing the Crusader influence.]*

I may say that I have recently dealt with Fatimid architecture in the *Barlinton Magazine*, and am discussing the work of Saladin as influenced by the Crusaders in the January number.

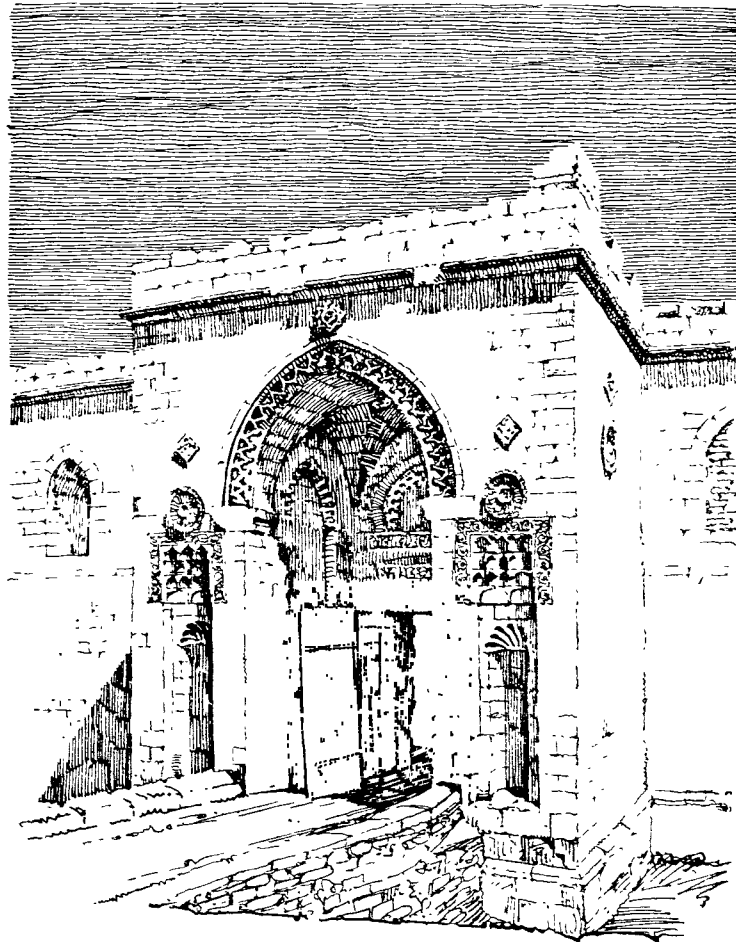
IV.

But the golden age of Saracenic architecture in Egypt and Palestine was the period of the Mameluke sultans from 1250 to 1517. The word *mamluk* in Arabic signifies a "slave." It had been employed centuries earlier at Baghdad, where the Caliph had formed a bodyguard of slave-soldiers drawn from the Turcoman tribes of Central Asia. One of these mamlukes was Ibn-Tulun, another was Saladin, and it is a curious thing that almost all the best architecture of the Saracens was produced under the direct inspiration of these foreign soldiers, for from their ranks came to be chosen the Sultan of Egypt, who was, almost without interruption during the Middle Ages, the ruler of Palestine also. Cairo now became by far the most important city of these rulers, and at the same time the most luxurious and beautiful capital in the Near East. Professor Lane-Poole has shown that Cairo, not Baghdad, was the real scene of the "Arabian Nights." But out of hundreds of buildings still remaining from the Mameluke period I have only time to mention a few typical mosques.

One of the first Mameluke sultans was Bibars (1260–1277), who built a large congregational mosque on the Abbassia road outside Cairo. With its long bare stone walls, battlements, and massive porches, it looks more like a fortress than a mosque. To architects it is important for the ornament of these porches, showing Crusader influence, and for the geometrical plate-tracery of its windows or *kamariyyas*. In its plan it follows the traditional type, but the great façade is treated as a definite design, not merely as an enclosing wall.

Perhaps the most beautiful building in all Cairo is the tomb-mosque (1284-1285) of Sultan Qalaun. This is an entirely new type, and the chief feature in all tomb-mosques is the dome over the tomb itself. Hereafter the dome came to be the principal factor in Cairo architecture, and was often skilfully used in contrast with the slender form of the minaret. The interior of this building is decorated with rich ornament in marble and other precious materials, and the striped façade—probably the prototype of striped façades in Pisa and Genoa, whither sailors brought back ideas from Egypt—is a beautiful composition again showing Crusader influence. The windows here are specially not-worthy.

Another different form of mosque is to be found in the enormous Madrassa of Sultan Hasan (1356-1363) in Cairo. A *madrassa* is a collegiate mosque and has a cruciform plan, there being a deep recess or *luran*, for the use of the four sects of Islam, on each side of the central open *sahn*. A huge pointed arch opens from the *sahn* in to each of these recesses. This type was evolved at least 200 years earlier at Damascus, but the Mosque of Sultan Hasan is its finest example. Besides the *madrassa* proper there is a domed chamber containing the sultan's tomb. To my mind the austere interior of the great courtyard furnishes the strongest possible argument against the view that Arab architecture is always fickle, unstable, and weak. The severe simplicity of the design is only relieved by the foliated parapet or battlement silhouetted against the sky, and by the magnificent stucco frieze in low relief round the Mecca *luran*. Externally the building has a dome, and two minarets of different dates, but the chief features are the lofty façade, 113 ft. high and 500 ft. long, culminating in a great stalaetite cornice,—though bold cornices are seldom found, and possibly this may be an innovation from Europe,—and the magnificent porch with stalaetites over.



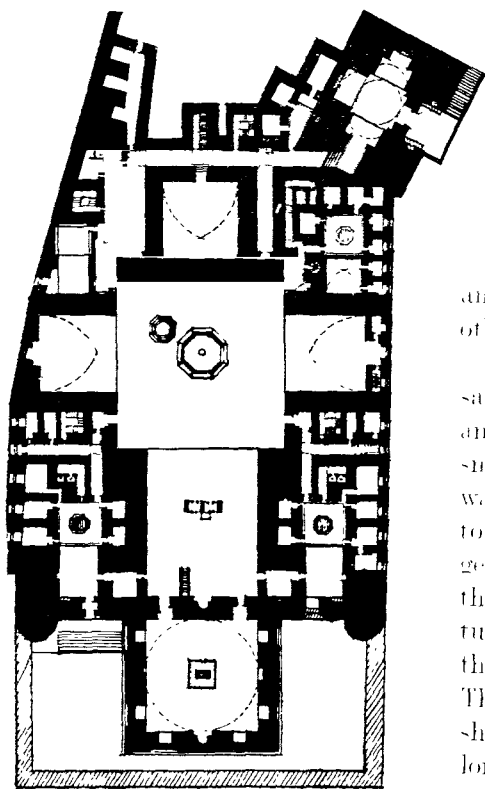
CAIRO MOSQUE OF BIBARS AL-ZAHIR (1296-9), SOUTH PORCH
(SHOWING CRUSADER INFLUENCE.)

In the latter half of the Mameluke period was built the wonderful series of tombs in the desert east of the city, wrongly known as the "Tombs of the Caliphs."

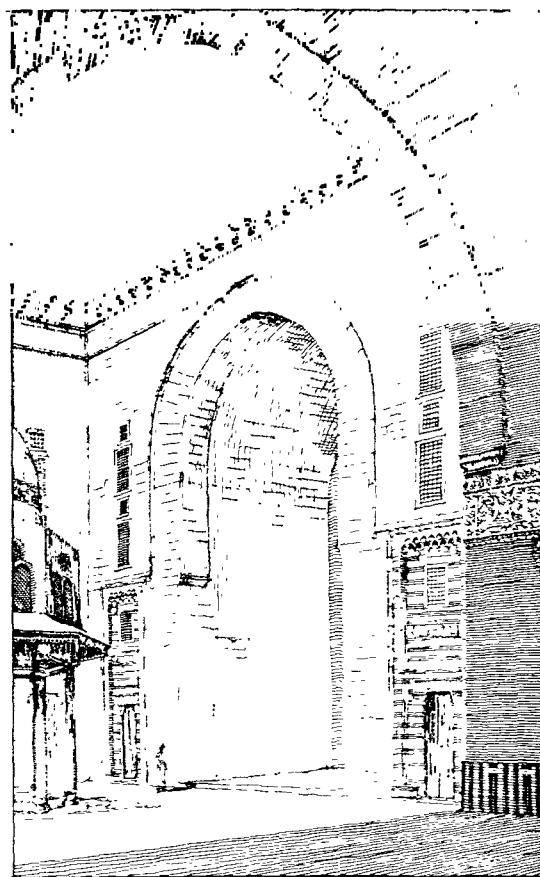
Of these the earliest, largest, and most remarkable, is the great convent and tomb-mosque of Barquq, erected by Sultan Farag in 1400-1410. This preserves in its main outlines the form of the congregational mosque, with the addition of a domed tomb-chamber at either end of the Mecca *luran*. It is commonly said of Saracenic architecture that it is not symmetrical in its planning or grouping, but in the examples that I have illustrated on the screen we find almost absolute symmetry. The

principal elevation in this case is approximately symmetrical, though one of the minarets has lost its top stage. The south-east elevation, towards Mecca, is perfectly symmetrical. The chief features of the building are: (i) the fluting of the domes, used to break up an otherwise plain surface that is always unpleasantly dazzling in the glare of the East; (ii) the arches of the *lucern*, recalling Crusaders' cloisters; and (iii) the graceful form of the minaret.

In the succeeding century, particularly under the Sultans Qayt-Bay and Al-Ghury, Saracenic art reached its culmination, and a number of splendid buildings were erected, chiefly in Cairo. They are notable for: (i) the profuseness and delicacy of their ornament; (ii) the slender beauty of their minarets; (iii) the studied grouping of minarets and domes; (iv) the harmonious relation of all details of both interior and exterior. The *madrassa* plan came to be the most popular, but the central court was roofed with a lantern or dome. The tomb-mosque of Qayt-Bay 1472-1474, is the most



CAIRO. MOSQUE OF SULTAN HASAN (1356-63)
Plan



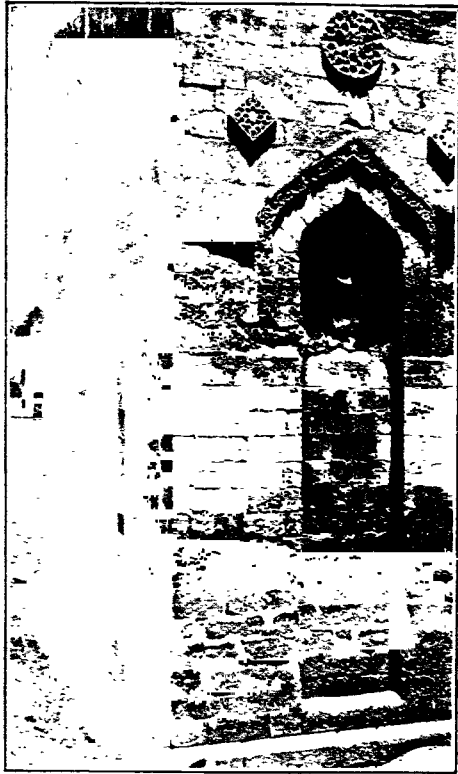
M. S. B. 11.

CAIRO. MOSQUE OF SULTAN HASAN (1356-63)
VIEW OF INTERIOR COURT (Sabn)

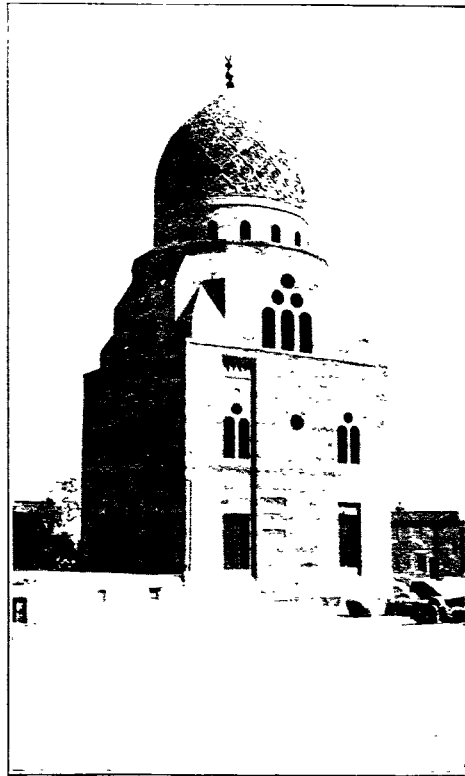
(From the same author's *Through Egypt to Baghdad*, by permission of Messrs. Fisher Unwin, Ltd.)

ambitious of the long list, and may be taken as typical of the others.

Speaking of Mameluke architecture in general, it may be said that mosque-planning showed a progressive development, and that the later mosques, though in most cases comparatively small, displayed an increasing richness of craftsmanship. Stone was always used, and the picturesque brickwork found in the towns of the Egyptian Delta is of later date. The masonry generally is of excellent quality, and of limestone obtained from the Muqattam Hills. Throughout this long period the architecture of Cairo was far more important and of greater excellence than that of all the other towns of Syria and Egypt put together. The favourite arch form was a pointed horse-shoe, but the horse-shoe was never exaggerated, the curves of the arch being prolonged very slightly below the springing. The round horse-shoe arch and the Persian arch are hardly ever found, the cusped arch very occasionally, whereas simple semi-circular and stilted



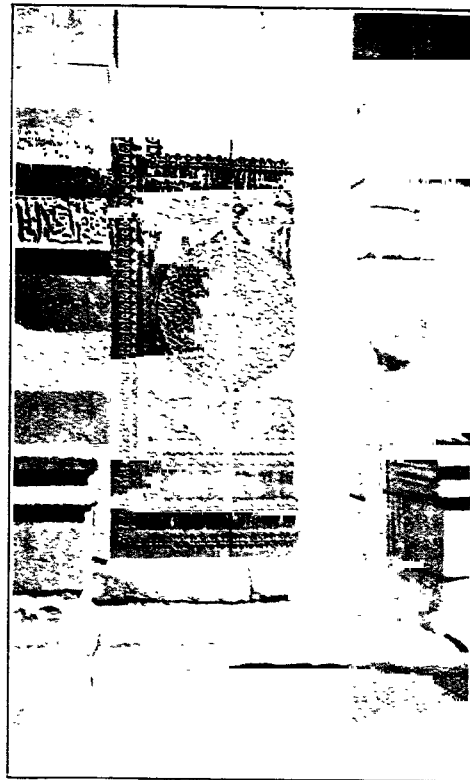
CAIRO MOSQUE OF BIBARS EZ-ZAHIR.
DETAIL OF PORCH (1266-7).



CAIRO: TOMB-MOSQUE OF TUMAN-BAY AT ABBASSIA
(1517)



CAIRO BAB ZUWILHA (1387)



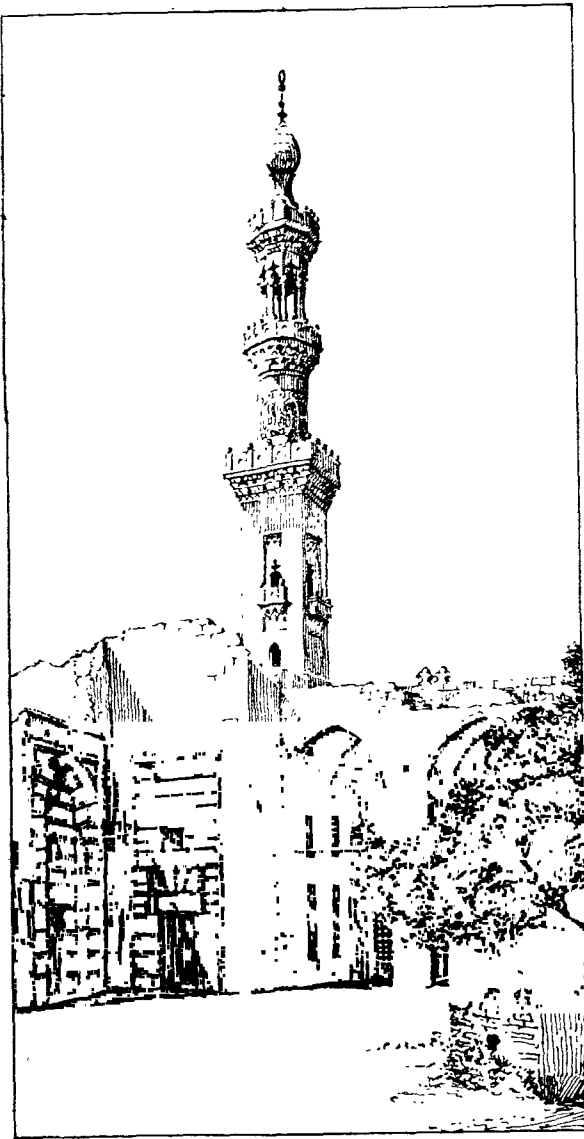
CAIRO DOORWAY OF MOSQUE OF GOHAR AT-LAI A
(1430) *(Photo by Author.)*

semi-circular arches are common. The chief structures of Mr. March-Phillipps thus hardly apply to the architecture of Egypt and Palestine. But his objection to the use of wooden ties across the springing of arcades is well founded in those cases—and they are not very numerous—where it applies. The architect of Ibn-Tulun's mosque boldly dispensed with ties and provided heavy piers, but many of his

followers, who preferred to use slender columns of antique marble—and with much more success than Mr. March-Phillipps admits—apparently did not dare to discard these undesirable expedients.

The outline of the characteristic Cairo dome, slightly stilted, is probably familiar to you all. It is never (except in a few cases in the so-called Tombs of the Mamelukes, due to Tartar influence) of the bulbous type frequently regarded as typical of Saracenic architecture, but really peculiar to Persia and Turkestan. The outer surface was successively decorated with vertical fluting, with diagonal fluting or "chevrons," with geometrical arabesques, and finally with foliated arabesques of great delicacy. The early domes were supported on niche-pendentives, but stalactites were substituted in later examples, with an increasing complexity and lightness as the XVth century advanced. Apart from dome construction, vaulting was little used by the Saracens, except in gateways and fortresses, where they seem to have derived their knowledge from the Crusaders, or at any rate from Europe. Nor did the Mameluke architects ever evolve any "orders." They were content to utilise marble columns as they found them, increasing their height by means of Byzantine pedestals and dossierets or of a curious stalactited block, not exactly a dossieret, above the capital. This supported the arch.

The façades of the mosques, and the walls of their inner courts, were crowned with indented or foliated battlements. Before the Mameluke period these had consisted of geometrical pierced parapets; the next stage was a curious saw-tooth type that seems to have had its origin in Mesopotamia, and later appeared in Central and Northern Italy (an example akin to this last type is found at the Doge's Palace, Venice); and Mameluke buildings



CAIRO MOSQUE OF BARQUT, *extra muros* (1400-10). INTERIOR.
M.S.B. del.

(From the same author's *Through Egypt in War-time*, by permission of Messrs. Fisher Unwin, Ltd.)

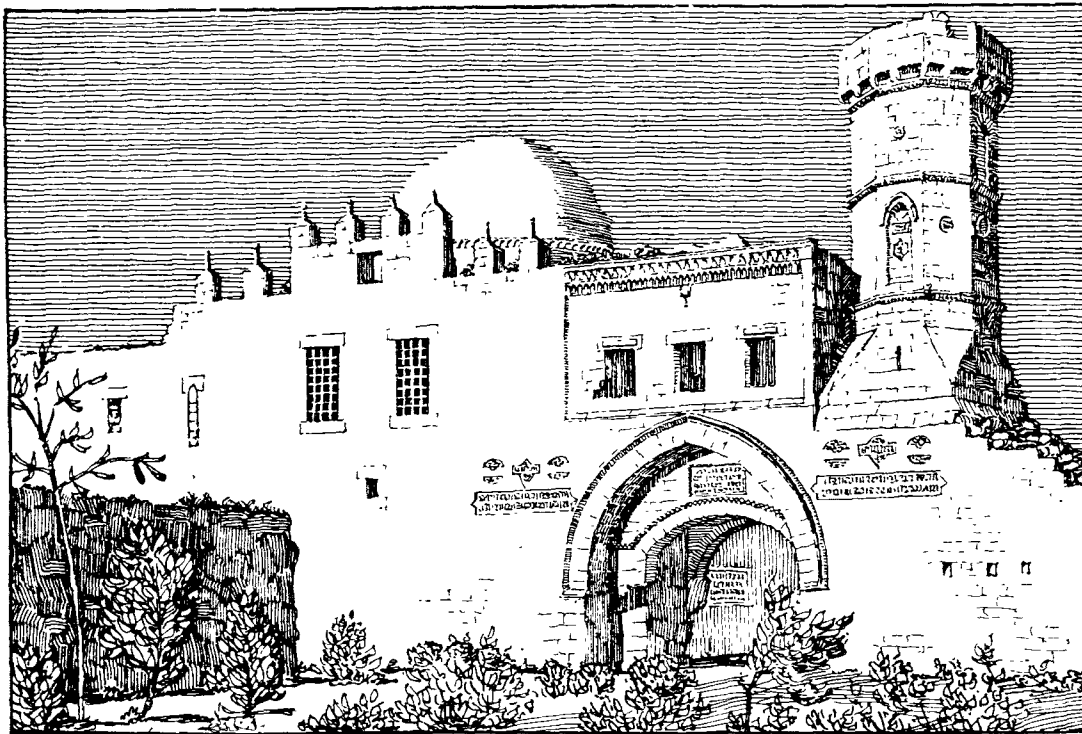
of the last phase have more or less elaborate foliated parapets, not unlike Gothic cresting.

One hardly ever finds a Saracen building crowned by a cornice. Similarly, the Arabs never utilised mouldings with any effect, but there is a charming type of strapwork or interlacing ornament that is frequently used round arches where Gothic masons would use a dripstone.

The Arabs seem to have aimed at breaking up all flat surfaces which would otherwise have been glaring, and decorating them in very low relief. There is one very beautiful stucco frieze in the Mosque

of Sultan Hasan that serves to illustrate three of the leading characteristics of Saracenic ornament : (i) the decorative use of Kufic lettering ; (ii) the conventional type assumed by floral forms (the use of living animal and vegetable forms in decoration being forbidden by Muslim tradition), and (iii) the lowness of the relief and the delicacy of its execution.

The chief feature that is peculiar to the Saracenic style is the curious geometrical form known as the " stalactite." Its origin is still quite uncertain, and it does not seem to have existed prior to the Mosque of Al-Aqmar at Cairo. It consists of tiers of projecting niches, angular or curved or plain. It is used in the pendentives of domes, in the vaulted heads of porches, in capitals, brackets, and cornices, and in most cases involves very great skill in craftsmanship.



KHAN YUNUS, NEAR GAZA MOSQUE OF THE EMIR YUNUS ED-DAWADAR (late 14th Century). M.S.B. del.
 (A building very familiar to soldiers during 1917)
 (From the same author's *Through Egypt in War-time*, by permission of Messrs Fisher Unwin, Ltd)

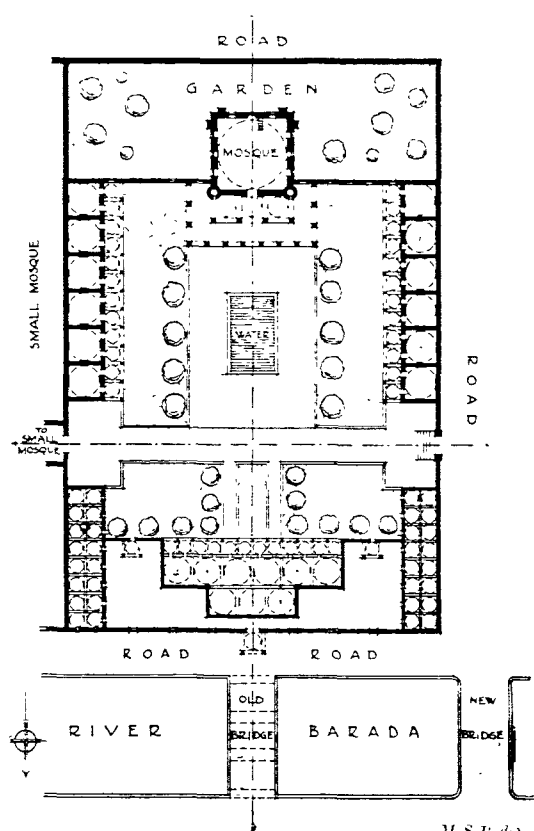
Joggled voussoirs afford another outlet for the skill of the mason and the marble worker. The example illustrated is one of the most elaborate of all, but on the same slide you see the most familiar type of decoration for the *mihrab* and the *minbar* in the Mameluke architecture of Cairo.

Saracenic woodwork is renowned for its elaboration, though this elaboration was usually dictated by practical reasons. For instance, the beautiful turned lattice-work known as *musharabiya* was designed to permit the inner rooms of a house to be simultaneously shaded and aired while preventing the inquisitive male from seeing the women within, though they could watch the happenings out-of-doors without being seen themselves. And the delicacy of panelled woodwork was conditioned by the shrinkage of timber under the blazing Egyptian sun, so that small panels were essential. If there are any of you here who are unfamiliar with the minor arts of Arab craftsmanship, the inlay in ebony and ivory, the dainty *hamariyas* or traceried windows filled with coloured glass, the marble dados in quiet tones of grey and blue and white, the wonderful lamps that hung in the mosques, you will find them all illustrated in the works of Prisse d'Avennes and of Bourgoin in our Institute Library ; and there is a fair collection of examples in the South Kensington Museum.

The Turkish conquest of Egypt and Palestine in 1517 put an end to the Mameluke sultans and caused an immediate change in architectural forms. Though the Saracen tradition in building has never really died, the Turkish conquest brought about a cessation of mosque building and a deterioration in design. The mosques of Constantinople made their influence felt in Cairo, but the Tekkiyet at Damascus is the best example of this new school, and is noteworthy as having almost the only good "lay-out" among the mosques of Egypt and Syria. But with this architecture, as with the admirable domestic work of the Saracen and Turkish periods, I cannot deal here.*

V.

In attempting any general estimate of the character of Saracenic architecture we are apt to be led by our Northern habit of mind to compare a mosque with a Gothic church. But they are completely different buildings. The mosque is a place for individual prayer and for congregational worship, even for preaching, but there is no long-drawn approach to an altar at the end of a vista, no carefully graded stages of mystery and holiness. It is a very democratic and hospitable place of worship, very free from priestcraft, and yet its devotees display—in their own way—a reverence that competes very favour-



DAMASCUS. THE TEKKIYET (XVth Century)
Sketch plan of lay-out. No scale.

M.S.B. d.d.

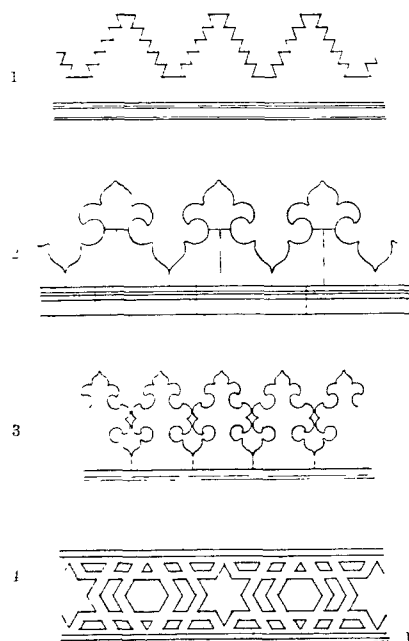


Diagram showing various types of parapets used in Cairo. No. 1 is from the mosque of Al-Hakim (9th), No. 2 is frequently used in the early Mameluke period, and Nos. 3 and 4 in the late Mameluke period.

M.S.B. d.d.

ably with the Easter orgy at St. Peter's or the annual hurly-burly at the Holy Sepulchre in Jerusalem.

I believe it is fashionable nowadays to sneer at Fergusson, mainly because his books do not contain colotype plates. But he could write about architecture with scholarship and authority, and rather than attempt some flowery peroration for my simple study of Saracenic art, I prefer to conclude by quoting, without qualification or cavilling, Fergusson's measured verdict on the style:

[The Saracens] "can in no instance be called a great people; nor do their works ever reach true grandeur nor even affect sublimity. Beauty was their aim; and gifted, as nearly all the nations of the Moslem world were, with an exquisite sensibility and the keenest perception of the beautiful, they

* My articles on "Roman Tradition in Moslem Architecture" and on "Fatimid Architecture in Cairo" have appeared in the *Burlington Magazine* for March, September and October of this year; further articles are appearing on "The Architecture of Saladin and the influence of the Crusaders" and on "The Arab House"; and my book on *Saracenic Architecture* will shortly be published by the Oxford University Press.—M. S. B.

attained to this by means of a degree of taste and refinement which seems innate in them. The grace and elegance of their architecture has never been surpassed. In the higher qualities of art, this style is certainly inferior to the Egyptian, Grecian, or Gothic style; but it surpasses them all in endless fertility of invention, as well as in the variety of ornament and detail which lend such a charm to every work they ever produced. . . .

"Art is not confined to one or two forms, and is not to be confined by figures or by rules but is everywhere and in everything for those who seek it honestly and for its own sake."

DISCUSSION OF MR. BRIGGS'S PAPER.

MR. WALTER CAVE, *Vice-President*, in the Chair.

Professor T. W. ARNOLD, Professor of Arabic at the School of Oriental Studies, in proposing a vote of thanks to Mr. Briggs for his paper, said that before an audience of experts he could hardly be expected to say anything on the subject of architecture. But he would like to express his admiration for Mr. Briggs's scholarship and his lucid exposition of his subject; also his pleasure in seeing the beautiful slides, which showed that even photography might count among the fine arts, and the exquisite drawings, which revealed Mr. Briggs's fine appreciation of architecture and his artistic sense. A matter on which Mr. Briggs invited criticism was the use of the word "Saracen." No Arabs, indeed no Mohammedans whatever, used that term to describe themselves. It was met with first in Europe in the Greek writings of the Byzantine historians, who used this term for those Moslem enemies with whom they were engaged in a life-and-death struggle, those enemies who ultimately swept them out of existence. From the writings of the Greek historians it passed into Latin, and was the common term with which the Latin chroniclers, especially the historians of the Crusades, described their Mohammedan enemies. It was a matter of doubtful taste, when praising a people, to apply to them a term which was only used by their enemies. The Institute would hardly approve of a work on, say, Roman Catholic Churches if the stout old Protestant term "Papist" were used in place of "Roman Catholic." Nor would it be suitable that a scientific work on the Churches of Germany should have such a title as "A History of the Ecclesiastical Architecture of the Boche." There was a similar objection if they were speaking in praise of Moslem architecture and pointing out its finer aspects to their describing it as "Saracen." Mr. Briggs rightly described this architecture as a product of the Moslem faith, but the term "Saracen" was in existence long before Islam, so that for another historical reason the word was unsuitable for describing the architecture of the Moslems. The word was of great antiquity, and is supposed to be derived from the word "Sharrāku," which occurs even so early as in an Assyrian inscription of the eighth century B.C., where it was used of the Nomad Arabs of the desert. The Institute was to be congratulated in that this very noble and dignified architecture was now brought not only to their notice, but also, in Mr. Briggs's

forthcoming volume, to the wider public in this country. With our close contact with, and our interest in, the Mohammedan world, it was a shame to us that, hitherto, the Moslem architecture of Western Asia had been so much neglected. He believed that no monumental work on this field of architectural study had come out since that of Fergusson, which was published more than fifty years ago. But during this period other European scholars had done a great deal. The discovery of Qusair Amra, and the careful study of Mschatta had thrown much light on the beginnings of this architecture: the excavations of Professor Herzfeld, the archaeological tours of Sarre and others, had produced a vast amount of material which was unknown to Fergusson. The increased interest in the subject felt by the present generation would, he hoped, give Mr. Briggs's volume a warm welcome, a welcome which, from the small instalment of it he had put before them in his paper, they all felt it would fully deserve.

Sir BANISTER FLETCHER [F.] said it gave him very great pleasure to second the vote of thanks, more especially as, in 1914, he had travelled through Palestine and seen many of the buildings which Mr. Briggs had so graphically described. He was glad to hear the reference to Kairowan, near Tunis. When he (the speaker) visited it, ten years ago, it struck him as being one of the most impressive mosques that the Saracens had ever erected. From the point of view of architecture, this subject must be considered archaeological. In the beginning of the nineteenth century, if the Martin Briggs of that period had taken so much trouble to talk about this subject no doubt we should have had a Saracenic Revival in London. But they should now be spared that, he thought. He would suggest that Mr. Briggs might well leave poor Mr. March Phillipps out of his book. Mr. March Phillipps could scarcely be considered a serious writer on the subject. It must be remembered that this was an Eastern style, and if ever there was a style which correctly reflected the people who were its constructors, it was this Saracenic style—as it was with any true style. So if any of our younger members were going in for that remarkable building which the President told them about the other day, and which he had been successful in arranging on such good terms for the architectural profession, namely, the hospital which was to be built in Cairo, they would have to consider how much

of the negative Saracenic art they were justified in putting into that building, which was to be one of the most monumental in Cairo. Mr. Briggs had omitted to speak of the influence on Spanish Gothic—that, no doubt, would be brought out in his book. Anyone who had travelled through Spain would have been amazed at the amount of Saracenic ornament which had been translated into terms of Gothic in that remarkable country, and it said much for the influence of those painstaking Moorish craftsmen that their work should have been copied to such a remarkable extent: and not merely copied, but altered and adapted to suit a particular purpose. Particularly was that so with some of the Saracenic ornament. The Mosque to Sultan Hassan, in Cairo, which was built for a special purpose, with its four enormous pointed vaults, converging from a central space, always struck him as one of the most powerful pieces of work in that delightful city. When it was remembered that the outside wall was half as high again as the façade of St. Paul's Cathedral, one could get an idea of the impression it produced on the beholder.

Mr. EDWARD P. WARREN, F.S.A. [F.] said that Mr. Briggs's lecture had interested him very much, for he had recently been in countries where specimens of Saracenic architecture abounded, that is to say, in Mesopotamia, Persia and Egypt. Mr. Briggs had spoken of the bulbous dome as being peculiar to Persia and to Turkestan. But it was the almost invariable form in Mesopotamia; except for the shallow domes, there were very few there which were not onion-shaped—and splendid domes they were. In Mesopotamia they were usually covered with glazed tiles, and sometimes with plates of copper, gilt. That was the case in the splendid mosques of Kazimain, Samarra and Kerbela. Tiles were general in Baghdad in particular, and were in patterns, coloured blue, yellow, black and green, with some white, the general effect being blue. These were extraordinarily ingeniously arranged on the bulb-shaped dome, and they must have been very difficult to set out in the patterns of the Persian type—foliated, spreading, converging over this double curve. They start with a straight neck, and then the dome sweeps up on an outward curve, and then there is a curve inwards again, like an inverted balloon, and the patterns have to follow these curves. He had the good fortune to be in Baghdad when the British Government had taken over the care of the Ecclesiastical Commission, and, with it, the care and upkeep of the mosques. There he made friends with an officer who spoke Arabic and who was in charge of the Commission. He (Mr. Warren) went with this officer into the mosques and on to their roofs. He was interested to know where the tiles were made, and asked to be taken to the tiling. To his surprise he found that the tiles were actually made at the mosque, being moulded from the clay, painted, and finished at the mosque itself. There was a small kiln opening into the courtyard of the mosque, where the clay was being fired. He saw a delightful and intelligent little man, in a green turban, who was

kneeling on the flat of the roof of the mosque which he was repairing, and was painting with a long brush the tiles, which had been glazed to a coarse white glaze. The pigments were in powders, but did not represent the colours they were finally made into. The little workman took him to the kiln, and explained how he set out these curves for the dome which he was repairing. He fixed his paper to a dome of similar curvature, and drew his converging patterns upon that with great adroitness: he then fixed them up and repaired the dome. At Samarra, of which Mr. Briggs showed a photograph, the great gilt dome against the blue sky, with its white minarets around it, was a magnificent sight. That very singular spiral tower which Mr. Briggs showed, he did not think was a minaret, because there was a strong suspicion that it was pre-existent to the ruined mosque close to which it stood, and up which he toiled. It was built of brick, and for no purpose except to ascend to a height. There was a 6-foot wide path going round the outside of it and no parapet. He found no difficulty in getting up, a matter of 170 feet or so: but coming down again was not very pleasant. Seeing the descending spirals made one want to cling to the sides. The view from the top was amazing, because the whole of the country was scored by the remains of the ruined city, known as Eski Baghdad, consisting merely of mounds and fragments. It was said to have had a population of four millions, and to have been 30 to 40 miles long. To float slowly over the area in an aeroplane, as had been done, would give a good idea of it. From the little he had seen, the Mesopotamian mosque differed considerably from mosques in Egypt and in India. Material in Mesopotamia was hard to find, and all the stone must be brought from the mountains a considerable distance away. Therefore the builders in Mesopotamia had had to rely upon brick made from mud. The bricks of the poorer mosques were nothing but sunburnt bricks; those of the better ones were fired bricks. The only fuel was desert scrub. Therefore the kilns had to be fed with this, which gave a rapidly-expiring fire, and so the bricks were not well burned. The builders trusted to plaster and tiles to get their effects. There was very little stone or marble to be seen, except what they called Mosul marble, which came from two miles outside Mosul. It was not marble at all, but coarse green veined alabaster. It bore the weather badly, and was not fit for external use, though it could be used for columns under cover. Mosul, in regard to the dilapidation of its surfaces, was one of the shabbiest towns he had seen. He thought the shape of the dome in Mesopotamia, and wherever else this bulbous form existed, grew from the difficulty as to the use of centering, or the lack of proper materials for centering, there being no native timber. Mr. Briggs had referred to "stalactites" and pendentives to carry the domes, and these were very common in brickwork. The Arab invariably built with his soft bricks square, and cut them after they were fired. He was very good at brick cutting. His idea of the origin of pendentives was that it was a little

corbel. It was natural, when one wanted to advance from one plane to another, to form a little corbel, every second row standing astride the lower one. That seemed to be a natural explanation. But the ornament had caught the Eastern fancy, and it was used in many ways. In nearly all the courtyards in Persia and Mesopotamia there were wooden columns, and their caps were always in stalactitic form, carved in wood: or, when they were brick, almost invariably in plaster. He would like to add a few words about India. What struck him, during the short time he was in India, was that the construction was more competent and serious; but the Moslem architecture, as he saw it in Delhi and its neighbourhood, was frequently a lesson in what appeared to be successful, but what we should regard as bad construction. The great arches, with slight Ogive top, were built entirely without voussoirs, but in straight courses through the arch, and he had no doubt that the slight Ogive top arose from the fact that it would be difficult to finish it in any other way. And the curve at the top made it easier to place the last two stones and avoid the fracture which might occur from the two edges coming together. It must be remembered that all Moslem architecture belonged to hot countries, and the expansion of stone, brick or marble during the hot weather tended to the fracturing of points of contact. One thing Mr. Briggs had not alluded to was a characteristic of this form of architecture—viz., the extraordinary keying of lintels and arch stones together, not with the ordinary European joggle, or the twelfth or thirteenth century joggle joint, but with an extraordinary complication of curves and patterns to form the joint. He had seen them in a monastery near Mosul, in the arches and lintels of alabaster: they were said to be of the eleventh century, and not a single joint seemed to be disturbed. How they fitted these complications—like a jig-saw puzzle—he could not imagine. The feature which struck him most in the few great mosques he had seen in India was the immense height of the arches, gateways and porches, which entirely beat what they were accustomed to in Europe. There were tremendous porches in French cathedral west fronts, but they were on nothing like the scale of the enormous Indian doorways. For the most part, Moslem architecture had not much to teach them in the manifestation of fine proportion: it consisted mostly of magnificent detail. But in one instance he was, as it were, swept off his feet by admiration of the sense of proportion in the grouping of the buildings constituting the Taj Mahal at Agra: it had a marvellously perfect outlay of gardens, canals, fountains and symmetrically grouped buildings. There was a great white dome flanked by marble minarets and by mosques, each in turn flanked by their octagonal pavilions. It was, in its way, the most perfectly elaborated group of buildings he had ever seen in any country.

The CHAIRMAN, in putting the vote of thanks, said he thought he should be expressing the feeling of everybody present when he said how greatly honoured

they felt at having His Highness the Emir Feisal with them. (Applause.) He wished also to express his thanks to Mr. Briggs for the wonderful collection of photographs he had placed on the walls for their benefit.

Mr. BRIGGS (in reply) referred to one or two points raised in the discussion. The Dome of the Rock at Jerusalem was, as Sir Banister Fletcher said, not precisely a mosque, but a sort of memorial chapel, a kind of shrine sheltering the sacred spot. Still, it would be technically described as a mosque. Mr. Warren had spoken of the bulbous domes in Mesopotamia. Perhaps he had not made that perfectly clear, but owing to the pressure of time he had to abbreviate many things. It would have been more correct if he had said that these domes are found east of Egypt, in Mesopotamia, as well as Persia and India, but not in Egypt itself. Mr. Warren also discussed the question whether the minaret of Samarra was a minaret or some other form of tower. That was a difficult question, which had been discussed by many authorities, such as Sarre and Herzfeld, whose researches at Samarra were interrupted by the war. But the general summary of evidence favoured its being considered a minaret. He had said something about what Mr. Warren called the jig-saw joggle: he had shown one example which was so much a jig-saw that one could hardly see it was a joggle, but the idea was there. With regard to Mr. March Phillipps's criticism, he had been asked, before the lecture, "Why March Phillipps?" His reply was, "We have had a number of historians of architecture from inside the profession: should not we take more notice of what is said outside it? For every one who reads our books, probably ten read March Phillipps's." This Arab chapter of March Phillipps's was the only part of the book which had not been discussed by an architect. He had no wish to do anything but discuss his theory, which he thought was open to criticism.

Writing since the meeting, Mr. Briggs says:—

"Owing to the lateness of the hour, I did not reply to two suggestions made by speakers in the discussion. To the first, that Mr. March Phillipps was not a serious writer, and that his criticisms of Arab art need not be considered in my forthcoming book, my reply is that a book is a very different matter from a short paper, and that though I do not undertake to refrain from mentioning this critic's views—which I regard as noteworthy from the vigour with which they are expressed—my treatment of them would be different.

"As to the second suggestion, that the book should include the other schools of Muslim Art—Indian, Turkish, Moorish, Persian, and so on—this is impossible to follow, and completely at variance with the scope of the book as originally projected. The school of Egypt and Syria is as distinct from that of India or Spain as English Gothic is from French Gothic, perhaps more so. It is no more necessary to include all these various national styles in one volume than it would be to describe the *châteaux* on the Loire in a book on our Tudor manor-houses. And the work involved would be the work of a lifetime."

THE IMPROVEMENT OF LONDON : THE SLUMS OF INNER LONDON AND THE HOUSING PROBLEM.

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Read before the Royal Institute of British Architects, Thursday, 16th December, 1920.

MR. PRESIDENT, LADIES AND GENTLEMEN.—Before proceeding to the subject of my Paper, I wish to express to our President my warm appreciation of his kindness in arranging this special evening, thus affording me the opportunity of bringing to your notice some housing and other problems which I hope may prove to be of special interest.

This Paper is an attempt to make some practical suggestions in regard to the urgent demand for extending the present business accommodation in the City; to the need of further communication between the north and south sides of the river; and more especially to deal with the housing problem as it affects manual labour. Of these subjects I consider the housing problem as the most important and the most insistent. But it must be approached not only in a practical manner, it must be approached in a spirit of humanity and "Fellowship." These present-day problems and any future developing of inner London must take into account the rapid development of electricity and the schemes now before us for centralising electric power.

It is possible to conceive in the future—many people think in the near future—that London atmosphere will be entirely free of smoke: electric power will be used for railways, river steamers, all factories, etc. Of course in New York many of the railways are worked under electricity for some miles from the city.

We have had a mass of literature during the last twenty-five or thirty years emanating from men who have made exhaustive and sympathetic enquiries into the conditions under which so large a proportion of Londoners have been doomed to merely exist, and this from no fault of their own. In any possible development of inner London the slums must be abolished. We have heard and been indignantly shocked for a time, and then taken refuge under the comforting assumption that the poor must always be with us.

Overcrowding existed before the War and was ignored, excepting by those who dwelt in the existing areas, but it has now increased to a degree that has given ground for general alarm. The great influx from the country into London, probably begun in the early years of last century, is of course the primary cause of the present state of congestion. Before the immigration at the beginning of last century it was possible for the citizen to have his own house. Such houses were often of two storeys, ground and first floors; when of three or more storeys, two families

could be accommodated, though not really in decency. It is in these districts that overcrowding prevails to a degree disgraceful to the whole community. These districts from the very beginning were mean, sordid and depressing. They are now mostly foul slums, to be found in nearly all districts in London. Their grimness cannot be fully realised without visiting them. Many of the properties were laid out by landowners to produce the greatest return in ground rents. The streets are of the narrowest possible width and the houses of the smallest possible frontage. There are no open spaces (such as abound in the Bloomsbury area, etc.), this not being thought necessary for the class who were to live in these neighbourhoods. Of course, ground rents and unearned increments are vested interests and must be respected. But recently we have had reports from two Commissions—viz., the Miners' Commission report and that emanating from the Lambeth Conference. The report issued by the Miners' Commission, with all its ghastly details of the conditions of miners' homes, is fresh in the memory of the public—for a time the revelations in it "guiltily aroused the conscience of the nation." "The appalling conditions under which tens of thousands had lived for generations was at last realised." The Lambeth report insists on the idea of "fellowship." It is evident from the miners' report that the reverse of "fellowship" was the idea when (1) a high wall was built on the boundary of a ducal park to hide from view a miners' village, and (2) where it was shown that seven people were crowded into one bedroom. One would think that in the ducal mind his tenants were, not only of another class, but a "low caste" as known in India—outcasts whose touch was defilement.

Strive for and accomplish all that is possible for the better housing of the people, we still have a submerged tenth to consider. But I would ask whether a clean sweep of this "Augean stable" cannot be attempted. Must we always have the poor with us? We think it expedient to accept this saying as a Divine precept, with a shrug of relief. The report of "The Church and Industrial Problems" emanating from the Bishops' Conference held at Lambeth is a strong condemnation not only of the slums in London but as they exist all over the country. It draws serious attention to overcrowding and the consequent results in drunkenness, poverty, crime and unrest. It goes on to say: "It is a reproach to our Christian civilisation that we have tolerated, both in town and country, slums and in-

sanitary dwellings which have caused an appalling mortality among *little children* and been plague spots of disease and moral evil." We have allowed our industrial towns to become a mere wilderness of hideous streets—this is equally true of very many districts in London. The Report continues: "workers ought to have an adequate share in the control of the conditions under which they work." It should be added "and under which they are housed and live."

A careful study of this report and the pamphlets by Sir Charles Booth, Mr. W. L. Hitchins (Chairman of Cammell, Laird and Co.), who are much quoted in the Bishops' report, lead one to feel that reparation is due, that it must be admitted, and, in some form or other, must be fulfilled. When the present conditions of the home life of manual workers are rightly and fully realised, it is impossible to doubt that these to a large extent are a cause of the feeling of unrest existing in the working classes. As one writer puts it, speaking of village life, "They lived from hand to mouth." "They had done so all their lives and knew no security, the chronic state of the poor. Only to-day they are awaking to the unreasoned impropriety of that state, only to-day do they demand to rise above the level of the brute creation."

It was my intention to illustrate this Paper by means of slides, and I paid a visit to Lambeth with a photographer to what I thought the slummiest district. But a friendly policeman took me to Hatfield Place and Wooton Place—houses of one and two storeys. Hatfield, Wooton—names that recall pleasant memories: but the damnable irony of it when you thought of the names and looked upon the places. I went into two houses, the two-storeyed ones—the ground floor room 9 by 10 feet, staircase 2 and 3 feet wide, scullery 7 by 7 feet, one bedroom only—with five people sleeping in it in the one house and four in the other. I was received quite politely: they hoped I had come to arrange for pipes and floors and roofs to be repaired. In one lived a widow, who looked very careworn but was patient, scarcely cheerful. Evidently it had been washing morning as three strings of children's clothes hung from the ceiling. I confess I had not courage to investigate in detail the sanitary arrangements. Rent 8s. 1½d. per week. But why the 1½d.? It must have been added as a devilish attempt at humour. The widow's eldest child lost a leg in the war. In the adjoining house the husband is still fighting in Mesopotamia. The children looked well cared for; of course their little noses, on a cold day, required attention. I tell you, I was quite overcome with horror to find further evidence that people, by no fault of theirs, are doomed to exist worse than do pigs. Of course, much worse than do other domestic animals. I felt guilty.

The photographs taken turned out to be unsuitable for my purpose. To my consternation they looked almost picturesque. The griminess of the houses, the dirtier the better, gave quite a pleasant tone to the photographs. In a water-colour sketch the "tone"

would have been more pleasing still. I have seen a colour sketch of a tramp—the greasiness of his rag—came out quite well in "high light." Thank goodness. I couldn't smell the subject!

There was some talk a little while ago of a Committee to enquire why the people had fallen away from the Church. The conditions under which so many of the poor exist may be the "wayside" and the "stony places" upon which the seeds of the sower fell.

Unrest is no new phase of existence in any class of the community. It is probable there was unrest among the Egyptian people when Joseph made a "corner" in wheat and became the first profiteer that history records—this perhaps is going too far into the remote past. We may infer that it existed, in a greater or less degree, until it culminated towards the latter end of the fourteenth century by the rising of the people under the mad priest John Ball; this in great part was certainly due to the conditions under which the mass of the manual workers were forced to exist at that time. The rising to some extent was successful in alleviating the harsh conditions under which the poor existed at the period, but any further amelioration was brought to an end by the dagger of Walworth—a drastic and for the time an effectual means of stifling unrest. The Lambeth report, speaking of mean wildernesses of hideous streets, to be found in slums everywhere, says: "The way of remedy is hard to find, but our conscience cannot be easy until we have found it."

I wish at this point to comment on the housing schemes being carried out by the London County Council for the accommodation of a vast number of manual workers. These schemes appear to be developing very rapidly, and in a satisfactory manner, though they can only be considered a partial solution of this difficult housing problem. They form entirely new areas of population, but add in an alarming degree to an already overgrown town. For years the expansion of London has been considered by all with apprehension. In defence of this expansion it has been affirmed that there was no other way to meet the urgency of the case. It appears to have been taken for granted that expansion must be outwards—nevertheless it may be questioned whether outward expansion will adequately relieve the wants and desires of the workers and of the community as a whole. The consequence of continued expansion will mean that traffic by rail, tram and bus will be greatly increased. At the present time it is congested, night and morning, to an alarming extent: a scramble or rather a desperate fight is necessary to get even standing room, and physical exhaustion is the result. Doctors tell us that no better means could be devised for the spreading of epidemic diseases. Further to overcrowd passenger traffic will quite probably lead to a disastrous breakdown. I would ask whether in place of new residential centres it would not have been more desirable to create new industrial centres on the outskirts. A beginning in this direction has been made in many places on the Great Western and other railways.

The tastes and preferences of the Londoner as compared with those of the country-born cannot be ignored. It is doubtful whether these have been sufficiently considered. There is no doubt that a very large proportion of Londoners would rather live in London than in the country or the suburbs. "The man who is tired of London is tired of life." There are tens of thousands who think as Dr. Johnson thought. "Live in the country!" cried a cockney. "Oh, give me the Clapham Road and the buses." There are a vast number of people whose occupation makes it necessary they should live near their work, such as newspaper employees, waiters, theatre people, and the great majority of men employed in the building trade. The localities in which the latter find work are constantly changing in every direction in and out of London. A workman living in the extreme north of London has often for considerable periods of time to journey across London to go to his work in the extreme south: this involves a journey of an hour and a half or more, night and morning, during most of which time he may have to stand. He is in some instances paid for the time engaged in this toilsome travelling, but of course that payment is indirectly made by the public. Therefore, if these workers could be provided with suitable homes inside London, it would tend to lessen the cost of production in many ways.

The creation of further residential centres round about London is fraught with many serious objections evident to all of us. The population is still increasing, and the consequent expansion of the town must be met in some form or the other; it is hoped to show how this can be attained to some considerable degree without increasing the present area of the metropolis.

The housing schemes now proceeding mostly leave untouched the hideous slums to which I have already referred. If, in the past, Governments or public bodies have given but scant attention to the crying evils of "slumdom," there have been, however, those who gravely studied the matter, who knew and were shocked and indignant that so great a part of the whole community should be compelled to exist under conditions so disgraceful to humanity. Peabody and others interested themselves, a mere handful among millions of their fellow citizens, and the "Peabody" dwellings were the outcome of their efforts. The public of that day gave a sigh of relief: here was someone willing to take up a burden and relieve them of all responsibility - not that the public thought for one moment that it was primarily responsible for such a state of affairs. The Peabody dwellings were followed by the L.C.C. industrial dwellings. Many of these, however, are far from being satisfactory except in teaching what to avoid: for example, when they are built in blocks, the space between them should be much greater, and in many instances the ground floor rooms have not nearly sufficient sky area. In all cases the general aspect is of the gloomiest character, depressing to a terrible degree when only passing them in

a casual manner. To the worker reaching home it must be like giving up hope to enter. Of course these remarks do not apply to the more recent industrial flats.

It is, I think, for architects seriously to consider any remedy, even though it be a partial one, which will tend towards obliteration of some of our London slums. I may here state that the remaining portion of my Paper is an amplification of suggestions I have already published in the *BUILDER* in 1918, and in the *Daily Telegraph* of this year. I then suggested that an area of about 150 acres on the south side of the river should be acquired for the purpose of building workmen's and middle-class dwellings in the form of flats, that a large area immediately abutting on the river should be devoted to business premises and public buildings and gardens. This would, of course, involve the removal of the wharves fronting on the river, and the clearance of a large area chiefly composed of such slums as I have already described. There is no valid reason why these wharves could not be removed to other districts without detriment to their business. As I have said, many factories go to the extreme outskirts, many are now located on sites adjoined to railways, and villages are springing up round them. There should be control over the introduction of further factories into inner London. This area would comprise the main frontage extending from the London County Hall to the site of the proposed St. Paul's Bridge, with an embankment between these points.

There are those who decry any suggestion to improve the south side of the river, pleading that under some atmospheres it is picturesque. Perhaps this is so when it is looked at from the northern side, whence the foulness of it cannot be seen. There is no doubt that in future, whenever the opportunity arises and the surroundings are suitable, we must build upwards. The proposal put forward by Sir Martin Conway for an upward expansion of London is admirable, at the same time we must not attempt to emulate the New York skyscrapers. There is no valid reason why flats for all classes should not be built to a height of fifteen or even twenty storeys on the embankment which is suggested should be formed on the south side of the river.

The idea of housing on the flat system is no new one. According to the late Professor George Rawlinson there were very high residential buildings - the "pleasant houses" in Ezekiel - in that part of the city of Tyre which was built upon an island. The fortifications of this part of the city where they faced the mainland were over 150 feet in height, and it is supposed that these residences were even higher: they may have formed part of the fortifications. It seems probable that each of these buildings was inhabited by several families, in which case we may say that the flat system was in being 4,000 years B.C.

The number of residential flats in London is increasing annually: at least this was the case before the War and probably will be again in the future. We all know how great is the demand for this class of residence, not-

withstanding that in very many instances some of the rooms receive light from internal areas only. Flats may generally be taken to be a height of six floors, the height being restricted by the conditions of the London Building Acts. If there were no such restrictions they could be built to a height of twenty or more storeys, the topmost storey being a more desirable residence than the lowest one. In some flats there is central heating: in all there is a great saving of labour and of worry in housekeeping. When properly planned they are as isolated as the ordinary street residence, and occupants of adjoining flats need meet only in the lifts.

Where there is a sufficient area on which to embark on a large building undertaking, within an outlook over the river, structures of an elevation of 150 to 200 feet would not, in my opinion, create an overpowering effect, especially as each block would require a certain amount of space around—at least 55 degrees of light to ground floor windows—thus ensuring that neither building would be overshadowed by its neighbour. It should be remembered that the Savoy Hotel, facing the Embankment, is 138 feet high. The Hotel Cecil is considerably higher. I may say that not a brick need be used in the construction of a block of flats such as I have described. This would mean, of course, a drastic revision of the Building Acts. As they now stand they are universally condemned as being altogether out of date.

The building upwards would provide a playing ground attached to each block and a partially covered playing area on the roofs. The roads of course would be planted and bordered by gardens—Utopian—yes, but Utopia was a “happy city”!

I remember hearing Gladstone affirm that Italians were the only people who built in a large and palatial manner; we see that this is true when we consider that the Pitti Palace in Florence, though comprised of three storeys only, is 120 feet from pavement to cornice. It certainly does not give the impression of being abnormally high. We have not followed other nations in regard to the height of our churches and other public buildings; consequently, although not inferior in beauty, they sometimes lack the imposing quality which mere size so often gives.

But only the fringe of “slumdom” would be touched by the rebirth of Lambeth. There remain other wildernesses, and in these we may well consider the question of expanding London upwards. I venture to say it is worthy of grave consideration, and in such areas as Hoxton, for instance, would go far to solving the housing problem. Those who know the New York skyscrapers will admit that they look very fine from the river and even from the street—though there are strong objections to them in a town on account of obstruction of light and air. This does not occur if they are sufficiently isolated. I do not suggest, however, that skyscrapers of the New York type are suitable for London. I have just said that we are timid in our conception of high buildings; we do not, however, think the Victoria

Tower too high, yet it is high enough for thirty storeys of flats.

In every large scheme of rebuilding the first obstacle is how to house the inhabitants during the process. This is the chief difficulty in the housing problem, and especially so in dealing with the slums. I would suggest that Army huts and other temporary Government buildings could be erected on open areas and converted into temporary homes for those families ejected from the houses to be destroyed on the area of each new tower of flats. There are many such open spaces which could be so used. For instance, portions of Victoria Park, Meath Gardens, London Fields, Well Street Common, Highbury Fields, and in the case of Lambeth, the Palace Gardens. Another manner of proceeding would be to build flats forthwith on such spaces as Meath Gardens, Well Street Common and a portion of Victoria Park. The loss of these open spaces could be compensated by new spaces formed by the demolition of condemned slums.

In order to allow me to speak with some little authority on residential flats, I thought it desirable to make plans of various groups. I thus found that each dwelling could be approached from a hall common to all, that each room could have direct and unobstructed light, and that for such things as slop pails, etc., which necessitate a space open to the air, a form of balcony might be made an agreeable architectural feature. Bachelor and spinster residences could be designed with suites, two or three rooms, or a dwelling of one room, very similar to those for students in Eton School. With the exception of increased dimensions these proposals, so far as accommodation is concerned, comply with the requirements of the Local Government Board. To those who are familiar with these requirements it will be obvious that they include all that is necessary for the needs of many middle-class people as well as those of the working class.

I sought the assistance of a Quantity Surveyor (who took out the quantities of one flat) and of a London contractor, to enable me to put before you the cost of buildings I have described. The result is as follows:

60 flats contained in a building	
10 storeys	£60,000
90 flats contained in a building	
15 storeys	90,000
120 flats contained in a building	
20 storeys	125,000

In positions where an architectural effect would be desirable, an additional $7\frac{1}{2}$ per cent. should be added to the cost. It must be noted that in a singular building designed as flats for single men and single women, the rents accruing would be something like three times as much as for a family flat: the initial cost being the same in both cases.

Of course strong exceptions will be taken to any method of fusion of the classes. It will be said that the manners, customs and sense of decency of the working classes is on a lower standard than that of other classes; it would be impossible to live under the

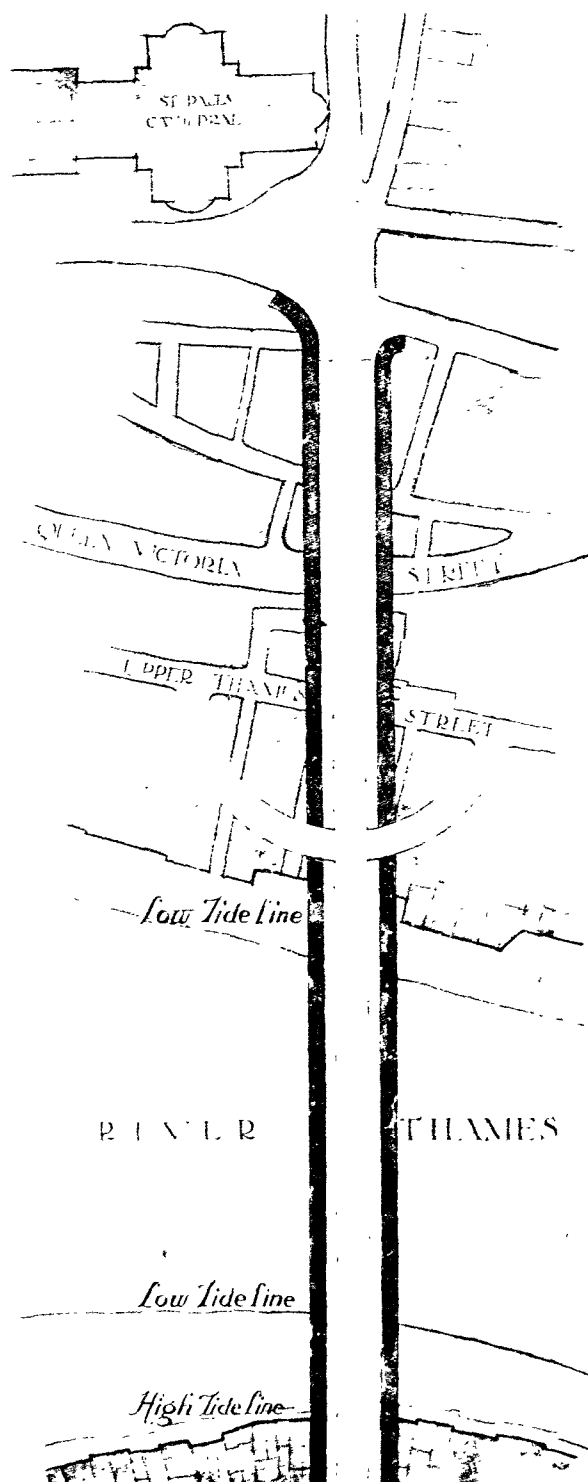
same roof or even in the same locality. But manners and customs change. They are on a higher standard now than pertained at the beginning of the nineteenth century. There is a tale told of the modern working woman who being congratulated on having a bath in her new house, "thanked God she had never had to use it." The peeress of a hundred or a hundred and twenty years ago might well have made the same reply. And decency is easily taught and learned. Compare the smoking carriages on the tubes with a third-class smoking carriage before their advent. Decency has never before been taught in such few and terse terms as "Do not spit."

As to locality, there must be no working people's localities in the future. No right feeling of fellowship can be encouraged if the social gulf is allowed to remain. Pray do not think I would suggest the planting of a workmen's club in such localities as Piccadilly, for instance. But, in coming happier times, even the clubman might not think them "untaught knaves, unmannerly, to bring a slovenly unhandsome corse betwixt the wind and his nobility."

In addition to the urgency of the housing question, there is very great need for further business accommodation in the heart of the City. I venture to suggest how this can be met to a large extent in a simple and practical manner. The building of a bridge starting from St. Paul's Churchyard has been in abeyance since 1914. It is now proposed to proceed with the scheme, and at a large increase of cost. The City authorities have, of course, obtained—no doubt at a heavy cost—a large amount of valuable property to form a necessary road from St. Paul's to the bank of the river, and more moderate outlay has been expended on property on the south side. My proposal is that the approaches on both sides should be formed into streets, as indicated on a plan now before you, that these streets should be continued across the river. They would be carried on arches similar to those, say, of Waterloo Bridge. I am assured by an eminent bridge engineer that my proposal would entail no engineering difficulties, either as regards the substructure or the extra width of bridge. The total width would be 150 feet, rather less than the railway bridge adjoining Blackfriars Bridge. There should be roads constructed, as shown on the plan, leading by easy gradients to the approach of the bridge. The buildings on either of the approaches would go to the full height allowed by the Building Act. This, of course, would mean about three extra storeys from the level of Queen Victoria Street to the new level. On the bridge portion of the scheme, a length of about 1,100 feet, the buildings could go to a height of three storeys, with the result that a very fine architectural effect could be attained. Of course, this would only be seen from the river, from the windows of adjacent buildings or from an aeroplane.

The completion of St. Paul's Bridge will, of course, give an immense area of property on the south side ripe for development and easy of access. The dis-

tance from St. Paul's Bridge to the end of Fenchurch Street is one mile, to Moorgate Street Station half a mile. A new centre of City activity on the south side



SUGGESTION FOR ST. PAUL'S BRIDGE

would be reached by a street of continuous buildings $\frac{3}{4}$ mile in length. On the other hand, the ordinary open bridge would mean a walk of nearly a quarter of a mile from business house to business house.

It will be allowed by every one who has considered the matter that there is a great need for more bridge communication between the north and the south of the river. It may be of interest to compare the bridge connection across the Seine with that across the Thames. From London Bridge to Chelsea Bridge, a distance of $3\frac{3}{4}$ miles, there are eight bridges only; in Paris in the same distance, and in the heart of the city, there are sixteen bridges, some of them only 300 yards apart. Paris is therefore one grand and beautiful city. London is gradually becoming beautiful on the north side of the river, but on the south side it is still little better than a collection of slums.

I am not versed in financial matters, but I may be allowed to give my views on the subject. With regard to the extra outlay involved in making the bridge 60 ft. wider than now contemplated, and including the superstructures of three floors, it may be put at a million or a million and a half. From reliable information I am assured that a rental of 15s. per foot super for the ground floor, and 7s. 6d. for the two upper floors could be obtained. On these values the total rent of £120,000 per annum would mean nearly 10 per cent. interest on an outlay of $1\frac{1}{2}$ millions to the Corporation, a "potentiality of becoming rich beyond the dreams of avarice." With regard to the bridges and the Embankment, the cost would presumably be borne jointly by the City Corporation and the London County Council. The present Embankment from Westminster Bridge to Blackfriars Bridge was due to the extinct Metropolitan Board of Works. If the Government can be satisfied that a housing and building scheme, on the 150 acres, would be of great public utility, it might be possible to obtain an Act of Parliament (similar in its provisions to the Railway Acts) giving to a properly constituted body or a syndicate powers similar to those given to the railways, including a right to purchase by valuation.

The property is at present of relatively small value: compared with City property it is as 1 to 10, or even 1 to 15. My opinion that a properly constituted building scheme could be made to pay is strengthened by the opinion of an eminent property surveyor. In developing any such scheme, a large proportion of the area would be for extension of business and various other premises—perhaps for public buildings. The Act might provide that certain areas be reserved to the Government or municipal authorities for the building of flats. A further project is the co-operation of Capital and Labour. This has already been successfully tried in the North of England on a small scale, under what conditions I am unable to say. Would it not be possible to effect co-operation in London, especially in regard to working class dwellings? Given a truce of five years, Labour

finding its capital by, say, a weekly levy of one shilling a week from members of the Building Unions and the allied trades—steelworkers, brickmakers, cement operatives and others—an enormous weekly capital would result. It would then be Capital and Labour Capital.

No collaboration between Capital and Labour is possible so long as that pernicious policy of "ca' canny" is prevalent. This is a fallacy even more detrimental to the morale of the worker than to the prosperity of the employer and the country. Happily, some sections of labour—the miners—appear to be awakening to this all-important fact.

I here venture to give quotations from Victor Hugo which appear to bear on the subject: "To kill wealth is not to distribute it. The two problems must be solved together to be well solved." "England creates wealth wonderfully and distributes it badly . . . this leads to monstrous misery." It is only right to say that these words were written before the advent of trade unions, but they have the same value to-day.

I am going to inflict upon you one more suggestion for the improvement of London, and that is that a Barrage should be formed in the river. It might conceivably form part of the proposed St. Paul's Bridge. A Barrage, below London Bridge, was formulated and discussed in a paper read at the Institution of Civil Engineers some few years since. The idea, however, did not fructify. The object of a Barrage is to keep the river above the bridge more equable in the rise and fall of the tide, thus adding greatly to its beauty. This idea was, however, found to be impracticable. In 1918 I made a suggestion that the proposed St. Paul's Bridge could be so constructed as to form a barrage. This, of course, would mean a series of locks and weirs. The rise and fall of the river would be 9 feet instead of 19 feet as at present. Perhaps this rise and fall could be utilised for the generation of electric power. Old London Bridge, with its enormous piers and small arches, acted as a barrage to such an extent that only practised boatmen could "shoot the rapids" rushing through the arches. The rise and fall of the river was so reduced that Pepys could enjoy a pair of oars taking him from the city to Westminster without much thought of the state of the tide.

I fully realize that the subjects and projects of this Paper have continually been brought to the notice of the public, that I am merely reiterating views and opinions of many individuals and of public bodies; but, often as they are brought forward, they soon lose interest and are forgotten. It cannot be a mere, or a too vivid, imagination to foresee a London resurgent, a city of incomparable beauty and dignity; in its midst a river once more worthy to be called the "Silver Thames," bordered on both sides with embankments and stately buildings, a noble and placid highway unsurpassed. It is said the world is for the young, that old men dream dreams—let our young men see visions.

DISCUSSION OF MR. COLLCUTT'S PAPER.

The President, Mr. JOHN W. SIMPSON, in the Chair.

Mr. RAYMOND UNWIN [F.], in proposing a vote of thanks to Mr. Colclutt, said that the Paper contained many suggestions which were useful indications of a line along which good might come. Mr. Colclutt had suggested the opening up of the southern side of London. Every one would agree that there was a good field there for the opening up of large areas which had not contributed the full value that they might to the convenience of the life of London. He had spoken, too, about the necessity for more open spaces, and of the importance of securing adequate light and sunshine for the dwellings of the people. At first sight he felt less inclined to follow Mr. Colclutt with any enthusiasm when he spoke of London expanding upwards. We were not yet in a position to form any final opinion on the subject. There was much to enquire into. Those who had studied the housing question in New York, Philadelphia, Chicago, Berlin and other German cities, envied London because it had not adopted the high tenement building as the basis of its housing. There were many considerations. First, dealing with the building itself. Mr. Colclutt had spoken of the importance of light—one might add also, of sunlight. In this country the sun only rose 15° in the winter. It followed, therefore, that for healthy housing purposes, for every storey higher in the building one sterilised a much larger area of ground on the shadow side than was gained by the extra storey. It also followed that dwellings could only be built healthily one dwelling deep, and even then only if there were not a north side to the building. Otherwise in this country the living rooms on the north side would get no sun throughout three parts of the year. It was difficult to build high blocks of buildings satisfactorily when they were to be only one or two rooms deep. A question, too, of vast importance was the evil of tenement dwellings for child life. There was a great deal to be said for buildings higher than we had at present, for special purposes—we had not made full use of height in this country. But as a general means of solving the housing problem, these high buildings would be found to be much more expensive in land. Again, the number of people got on the land healthily was only slightly increased because of the large area that must be left between and around the buildings in proportion to the height if they were not to be overshadowed. The question of lifts for artisans' dwellings, of the child use of lifts, must also be worked out. It would be found that nearly all the block dwellings in London cost more for less accommodation and inferior opportunities compared with the cottage dwellings which were being built in the country. It was traffic congestion which was making people think that London must be extended upwards. His opinion was that traffic con-

gestion was far worse in the cities which had built upwards, and that we should find, on careful survey, that the people who lived in the town used the traffic facilities more than did people who lived outside. The statistics of big towns, the growth of population in London and the growth of traffic, showed this. The number of journeys per head of the population and the total number of journeys taken increase not only faster than the population, but faster than the square of the increase of population. Take, for instance, a man living in a near London suburb, the whole of his family, including his servants, would be on the buses and in the tubes all day long, going by tube to shop, by tube to school, by tube to play cricket or football or hockey. But if he lived outside, at Hatfield, say, then only one member of the family would come to town daily and go back again. If proper and rapid transit were provided from the business centre to the centres of living, further out, traffic facilities required per million people would be considerably less than if the millions were crowded, as in London, round the centre. These matters required to be looked into very carefully, and London should think very long before it gave up that heritage of single-family dwelling-houses which was the envy of housing reformers throughout the rest of the world. There were few big cities numbering their population in millions which did not envy us having kept to the family cottage dwelling as the mainstay of the housing of our great population. The development of London was one of the most difficult problems that had ever faced a people. Architects and surveyors, as advisers to the great owners of London, had their share of responsibility. He hoped the Institute would have many meetings of this character at which those who, like Mr. Colclutt, had great experience could give them the benefit of it with the view of solving this problem. They should encourage the development of the city; and the next step would be to define zones for London. The best way to reform traffic congestion was to localise the life. People should live near their work, and to bring this about we must disentangle the confusion into which London had drifted. Factories must be built, and dwelling houses and recreative opportunities provided near them; so that people who lived in Hampstead or Hatfield or such-like places might be near their work and near everything they wanted. There was only one thing which was still centralising with great force in London, viz. commerce. We had not yet reached the limits of centralisation in commercial undertakings. But the majority of people did not come into London for commerce. Every one who lived in London employed a washerwoman, a milkman, and a host of other people for

their needs, and they all of them used tram, omnibus, tube, and other means of transport. If it were examined into, it would be seen that the localisation of life in centres outside London would lead to an easing, not to an increase, of the traffic difficulty. But there must be some reorganisation that we may have greater and quicker transport facilities from point to point.

Mr. JOHN SLATER [*F.*] said that the Institute was to be heartily congratulated on the fact that their old friend and Past President, Mr. Colcutt, had brought before them this interesting Paper, which bore evidence of all that acuteness of intellect which had distinguished him throughout his long career. The subject was of the greatest interest. How greatly London was overcrowded in many districts was known to all of them: and it was a curious fact that the Regulations of the Public Health Act, which had been framed to improve matters, had added to this overcrowding. In the estate for which he was responsible there were numerous dwellings with basements that were far healthier to live in than many of the rooms and houses people had to occupy. The Public Health Act regulation that no basement the ceiling of which was not a certain number of feet above the road was to be inhabited, had conduced to overcrowding, because it took no account of the area in front of the rooms. The basement rooms he had in view were quite healthy and well adapted for the housing of single families. He agreed with Mr. Unwin as to the disadvantage of high buildings for London. The question was an extremely difficult one. Owing to the large open spaces necessary between the buildings no more people could be accommodated than was now the case, and they could not get over the fact that although a high building might face the river and be quite unobjectionable, there would be a high back to that building, and the shadow cast on buildings in the rear would be very disagreeable and detrimental to the property. Mr. Colcutt's idea of having buildings on the bridges across the Thames, was a very happy one; the cost of the increased width of the bridge would be more than compensated for by the rents of the buildings on the bridge.

Mr. WM. WOODWARD [*F.*] said that for many years past he had devoted considerable time to an endeavour to effect improvements in London, in the hope of getting the Government to make some grant towards public improvements such as was done in France, where millions of money were given for such purposes as compared with our thousands. When he was a member of the Westminster City Council, they endeavoured to get a better opening to the Mall. The London County Council gave £33,000, and the Westminster City Council gave £33,000, but it was a matter of the greatest difficulty to get anything out of the Government. He agreed with Mr. Slater that the height of the building should have some relation to its position. They might have a building 200 feet in height facing the river Thames, but such a building must overshadow the buildings at its rear. Therefore

to get adequate light and air it would be necessary to form a street at the back of the high buildings, and this, in the City of London, would involve such an expense that it was hopeless to expect it to materialise. Every one was complaining of overcrowding, yet in some districts—in the Kennington Road, for instance—there were rows and rows of houses empty, though they could easily have been converted into dwellings for those that needed them. Who was to blame? Another point: why should the authorities of London, particularly the great landowners, clear sites, as they do, years before there was any probability of their being built upon? Take Lancaster Place, for instance. The Duchy of Lancaster had cleared all the dwellings opposite Somerset House: had turned out people who had offices there, and who now had the greatest difficulty to find offices anywhere. The Duchy of Lancaster had not the wisdom to wait until the sites were ready to build upon before they turned the people out of the houses. The height of houses depended on the height of the storeys. He remembered the Pitti Palace, at Florence, but was surprised to hear that each storey was 40 feet in height. With regard to slums, it was impossible to effect a clearance of these until provision was made for the people turned out. The Ministry of Health was created to supply houses in order that the slums might be cleared. But utter failure was the result. And a failure it would continue to be. The Ministry should be dismissed, and we should get back to private enterprise, which was the basis of English life. It had been suggested that huts should be used as temporary dwellings. In Regent's Park, in St. James's Park, in Battersea Park, and on the Thames Embankment there were many hundreds of huts, each of which could be made into a temporary home for a working class or a middle class family. His own opinion was that the difficulties we were now experiencing could be traced to trade unionism. Until the wings of trade unionism were closely clipped, knowing, as he did, the shocking waste of time it was responsible for, not only on buildings, but particularly on work in the streets, we should never get any real improvement, and we should never get the vast numbers of houses that were required for the working classes.

Mr. GEORGE HUBBARD, F.S.A. [*F.*] said that, looking at the question from the national health point of view, if the result of slum residence was to produce unhealthy children, obviously it was economically bad for this country. On that ground alone the slums should be cleared away. If the Government scheme failed how were the needed new houses to be built? An example which was under his notice at the present time was a fairly large area of cottage property, seven acres of dilapidated cottages. Looked at from the financial point of view, these cottages were let at weekly rentals, but the rates and taxes came to 16s. in the £. The owners, in addition to paying this, had to pay 6s. in the £ income tax. Consequently they were out of pocket to the extent of 2s. for every £1 of rent they received: and there were insurance and repairs to pay

for. There was no temptation for anybody to become an owner of cottages or to speculate in them. Mr. Woodward had touched the vital point when he said that private enterprise must come to the rescue; but was this likely in view of the above instance? What had been the effect in the past, when the Peabody Buildings were started, and the Sutton Trust, and the L.C.C. buildings? They were enterprises in which a limit was put on the interest to shareholders of from $2\frac{1}{2}$ per cent. to 5 per cent. They did a certain amount of good work, but they were not in a position to cope with the whole difficulty. The net result was that these schemes stopped private enterprise: the speculative builder, whose business it would be to tackle such a problem, was discouraged, for he did not know when he might find himself in competition with L.C.C. or Peabody Buildings. These enterprises were started with the best intentions on the part of the semi-philanthropic societies, but they were fatal to private enterprise. The next bad shock for private enterprise was in Mr. Lloyd George's Finance Act, by which its promoter hoped that land would become more popular by putting a tax on it. The consequence was that through semi-philanthropic enterprises and bad legislation by the Government, we were faced by a problem which seems to be insuperable and insoluble. Our consciences could not be really at ease until a solution had been found, but how it was to be found he had not the remotest idea if the Government scheme failed.

Mr. EDWARD P. WARREN, F.S.A. [F.] said that he concurred with all that had been said against the introduction of high buildings in London. Except for the kind of site Mr. Colcutt mentioned, on the river, we had no streets wide enough to take high buildings. With the exception of Portland Place, we hardly possessed a wide street in London. If we were to have high buildings, even on the scale of Portland Place, we should reduce the street to a lane. Victoria Street, Westminster, if it had buildings of an average height of 40 feet, would be a tolerable street, but it was now a sunless, dismal, narrow-looking lane because of the height of its buildings. The sun in London was always a friend, hardly ever an enemy: there was not a fortnight in the year when we could regard sunshine as formidable in London, and already people who lived, as he did, in a fairly old-established quarter, had high buildings of one kind and another rising, cutting off sunshine from one window after another. His study, looking north by west, used to get the late afternoon sun pleasantly from the middle of April to the middle of September, and in the evenings too, but now it was a sunless room because of a high building. If that kind of thing was to go on broadcast in London, it would render it more and more unhealthy, more and more physically and morally dismal. As the Italians say, "*Dove non va il sole va il medico*," where the sun doesn't go the doctor does. As to how it was possible to deal with the awful problems ahead of us, he did not see a solution. But we had been facing so many insoluble problems of late that we must keep our

courage tight in both hands, do the best we could, and as intelligently as we could, and hope for the future. It was always a pleasure to meet and talk to Mr. Colcutt, and a still greater pleasure and benefit to be talked to by him.

Major H. C. CORLETTE, O.B.E., R.B.C. [F.] said that it seemed to him that we were running away from some of the difficulties presented by London and its condition in that we tried too much to cure the evils we had round us, rather than to prevent the growth of London. Last year there was an important debate in the House of Commons on devolution. If anything of that sort were to come into being, it might do a great deal to prevent this growth. There was another Bill now under consideration which affected the agricultural question: and a measure of that sort, if it did what it was intended to do, should have the effect of keeping the population more in the agricultural districts, and that, again, would prevent the growth of London in the future.

Mr. FRANCIS HOOPER [F.] said that Mr. Colcutt had shown very wide reading by alluding to reports of two Commissions which might be said to form the extremes of our social system. The great need of the moment was that they should co-operate for the benefit of the whole. The influence of the Ecclesiastical Commissioners had been very great in the past, and their motives were, no doubt, admirable. Yet it was to their assistance during the last thirty or forty years that we owed row upon row and tier upon tier of dreary barrack-like buildings which had a most depressing effect upon the surroundings and were very detrimental to the neighbourhood in which they were placed. He had been reading lately "*An English Gentleman's House*," a book published when he was a boy, and had been much impressed by the progress that had taken place in our ideas of what an English gentleman's home should be. Turning over its illustrations he could pity some who had had to occupy that house. Mr. Colcutt's remarks as to baths showed how the habits of the people had changed. This question of solving the problem presented by the condition of the masses was one which it should be a privilege to face. Seeing the way the servants used to be housed in many of our large houses it could scarcely be said they were treated suitably. There were, however, institutions in the country at the present day which architects could rejoice in. Men who could conceive and carry into effect a Bournville or a Port Sunlight, for instance, deserved their fullest appreciation and reverence. Mr. Colcutt had mentioned a pathetic case of a landowner who built a high wall round his estate to shut out from view a contiguous mining village because it annoyed him: he (the speaker) had seen an embankment put up for the like purpose, and had lived long enough to see the perpetrator suffer for it. A man contemplating the purchase of a property naturally had to consider the possibility of adjoining property being so built upon as to injure the property he was proposing to buy. He would not object to hav-

ing a decent building in his prospect. It was only a bad building that would spoil the landscape. It was, however, the fact that people were nervous about what was going to be put up because their risks were so great. When the public felt they could trust architects there would be less difficulty in finding village settlements not, as in the past, eyesores, but places which it was really a pleasure to see.

THE PRESIDENT said he should like to add his own personal and sincere compliments to Mr. Collett upon his Paper. He had rarely heard one more interesting and compelling. (Hear, hear.) Its construction reminded him of how constantly it was found that when an architect took the trouble to write a Paper how extremely well he put it together. He had been struck with the construction of Mr. Collett's Paper: it was built up almost like a well-constructed building. He opened, almost as a popular novelist might open, with a touching sketch of the lamentable condition of the submerged tenth, and the infantile mortality which resulted from it: and he followed with a lofty and courageous hope for the abolition of those conditions, and the substitution of a cheerful confidence for the present dull despair. He then developed his subject by pointing out the prevailing congestion, and was somewhat depressing in his references to the transport difficulties. Then he brightened into a livelier vein and discussed, with that authority which he is able to discuss, the practical remedy for these evils. He touched very skilfully and delicately on the question of higher buildings. The Institute had had this matter under consideration for some time, and it might not be undesirable under certain conditions to urge the County Council to exercise the discretionary power which it possessed under the Building Act and permit higher buildings. But he was rather struck by the remarks of some who had debated this point. They seemed to have rather lost sight of Vitruvius, for they spoke of those buildings as if they were on the southern side of a street running east and west, and were therefore going to cast into shadow all the buildings which faced them. Vitruvius pointed out that roads and streets must be planned according to their aspect. High buildings in a street running east and west, such as Victoria Street, Westminster - which, as one speaker said, was one of the most depressing and dismal streets in the world - presented a different problem from that of, say, Portland Place, which ran north and south, and where higher buildings might not convert it into a lane. There was the question of architectural amenities as well as hygiene. With regard to the desirability of extending streets across the river bridges, in the old days when London was a small congested area within fortifications, and even later when traces of the fortifications were to be seen in the narrow slum-like streets which were gradually being opened up, it was of the greatest importance

to keep the river as open as possible, because that was the great airway and ventilator of London. But, with better conditions, he could see no objection to the prolongation of the streets across the river. The bridges in Paris which spanned the Seine were shorter than ours, but there were more of them, and there was no doubt they served to connect up the north and south sides of the river with very satisfactory results. Being a narrower river, too, it would be more important to keep it open. But in the case of the Thames, the open wind-swept roadways of Waterloo and Westminster bridges constituted a most effective barrier to human transit from north to south, and *vice versa*. If those open bleak roadways could be converted into streets, the interest of the streets would be continued from one side of the river to the other, and people could immediately, so to speak, clasp hands across the stream. The question of the congestion of traffic was an interesting subject and one which could lend itself to a long discussion. Roughly speaking, he took the argument to be that if everybody lived in London, everybody wanted to go out of it, and therefore trams, buses, tubes and so on were very crowded. On the other hand, it was a fact, as Mr. Unwin pointed out, that commercialism had by no means reached its highest point in London: it was still there and was developing, and was likely to increase for some time to come. There would therefore always be a central attraction, and perhaps Mr. Unwin would remember that it was not only one member of the family who came up by the 8.30 in the morning. A good many members of the family did this, and some of them held season tickets.

The vote of thanks was accorded by the meeting with loud and long-continued applause, which was renewed when Mr. Collett rose to reply.

MR. COLLETT, after expressing his acknowledgments, said that he fully agreed with what Mr. Raymond Unwin had pronounced as to the absolute necessity that ample light and air and aspect should be considered as of vital importance. He contended that the scheme he brought forward, of isolated blocks of flats, etc., 15 or even more storeys in height could be so planned as to give a sky area of at least 55 per cent. to the windows of the ground floor flats. This amount of sky area is not enjoyed in most streets in the London area, Portland Place may be an exception. Of course the object of his Paper was to suggest how the slum areas could be converted into districts of real beauty, with every advantage that only the most favoured part of London now enjoys, and that a much larger population could be housed without extending the outskirts of London, as is now being done, by the erection of vast numbers of two-storeyed cottages. However, his Paper had been put before them in the hope that it might lead to some inquiry in regard to the future of the mean and sordid districts now existing.

ARCHITECTURAL EDUCATION.

Papers read at the Franco-British Conference of Architects held at Paris, 12th-13th November, 1920.

V. THE STUDY OF OLD BUILDINGS.

By ARTHUR KEEN, Hon. Secretary R.I.B.A.

Among all the methods of training an architect for the practice of his calling, none was advocated by the men of the past generation with more earnestness and persistence than the study of old buildings by measuring and drawing them to scale and by sketching them in perspective. Study by this means is fascinating in itself, and it was adopted with such enthusiasm that nearly all the notable old buildings in our country have been drawn over and over again with the utmost faithfulness, and often with most beautiful draughtsmanship. The idea has been, of course, that in making a complete reproduction of a building on paper every feature of its construction, arrangement, and decoration is ascertained, noted and remembered. In this way buildings have been delineated so completely that as archaeological records the drawings leave nothing to be asked for. Even the accidents of building, the peculiarities arising out of inaccurate work or the re-using of old materials, have been faithfully reproduced, and nothing from the pattern of the floor tiling to the jointing of the leadwork on the roof omitted. In very many respects the method justified itself by its results, and the success of the Gothic Revival in England is in great measure due to it. Students obtained such intimate knowledge of the methods of the ancient builders, of the way in which walls, windows, roofs and arches were formed, and the minutest details of tracery and moulded stone or wood were handled, that they applied their knowledge to the problems of modern building with confidence and success, and often with most beautiful results. Whatever may be thought of the ethics of reviving in modern times and by modern methods a system that was so intimately allied to the life, thought, social conditions, and methods of workmanship of the mediæval times, there can surely be no question of the intrinsic beauty of the resulting buildings—such buildings as the Houses of Parliament at Westminster, St. Agnes' Church at Kensington, Bodley's great church at Pendlebury, the modern work of many of the Oxford and Cambridge colleges, and other buildings throughout the length and breadth of the land.

With these results before us we have to consider very seriously whether this method of study is still to be advocated, how far it is to be trusted, and how it can be used to even better purpose than before. It is essentially the method upon which the Gothic Revival flourished: it led to the production of many remarkable books, including the most remarkable of all, the *Dictionnaire* and other books of M. Viollet-le-Duc: and it certainly was the method followed by the men who produced architectural work of outstanding power, beauty and interest. On the other hand, we

have to remember that the great men of the Gothic Revival, Pugin, Butterfield, Street, Bodley, and the rest, were men of genius, and in the hands of a genius any method of study produces good results. The general average of attainment was, we must admit, rather poor, and one knows of only too many cases of architects whose study of old work was of the most exhaustive kind and yet their own original work was merely commonplace.

We have transferred our affection in the present day from Gothic work to Classic, but the method of study is equally applicable to both. Are we to trust to it implicitly, are we to abandon it, or are we to use it within the limitations that we think fit to impose? It appears to me that there is this essential difference to be borne in mind—that far more than in the case of the works of Greece or Rome or of the Italy of the Renaissance the architecture of the mediæval time was the logical outcome of particular methods of construction, of the limitations imposed by particular materials used and applied or accepted by men in whom artistic expression was an instinct, almost an unconscious tradition. The proportions and composition and ornaments of a Gothic building are constructional in their origin: in the Classic example they are the considered effort of one who seeks by conscious arrangement to produce effects that he values—effects of light and shadow, of concentration and contrast, of noble mass and beautiful outline, of subtle proportion, of breadth and dignity, richness, power, all the qualities by which stone and earthenware, metal and wood, may be shaped and disposed so as to convey to the spectator the feeling, the mental attitude and the power of the artist. It is therefore clear that if the study of old buildings by means of measurement and drawing is to have its full value for the student it must be accompanied by close and critical analysis. The mere record of the external facts may be useful for reference, but for the purpose of effective study it is necessary to understand how the design has been produced and upon what factors its success depends. I suggest, therefore, that writing should be used to supplement drawing, and the student should regard as more important even than his drawings a carefully reasoned statement or report on the building, setting out the impressions that he receives from it, its arrangement in relation to its site and surroundings, the features of its plan, especially the disposition of the blocks that form the elements in its external composition, the proportions and treatment of its rooms or halls, the size and treatment of its courtyards, the size, spacing and grouping of windows, the methods of construction and roofing adopted and their influence on the design, the skyline, the qualities upon which the designer has depended, whether of boldness, richness, refinement, grouping or proportion, and how these qualities are achieved and maintained: the relation of wall space to openings, of light to shade, of height to width: the use of colour, the treatment of metal work and sculpture—in short, all the things which must enter into

the consideration of design in buildings that he will be called upon to produce.

In the preparation of drawings these things may be accepted as facts without much appreciation of their origin or intention, but it is not possible to discuss and describe them in writing without due analysis and research—analysis which must constitute them part of the mental outfit of the student, and must give him a clear perception of the lines upon which successful design must proceed. I think it will be agreed by those who have tested it, that such critical analysis or description as I suggest has the effect of fixing the facts on the mind and memory of the student in the clearest and most lasting way. Drawing buildings in perspective is good, measuring and plotting them is better, but if both methods are used in conjunction with a carefully written description, very little more is possible. The details of architecture must be studied by drawing, but I submit that, as regards all the important factors that enter into the design of a building, a written record is the best means both for study and for impressing a subject on the memory of a student.

By the study of old work the student establishes for himself a standard of taste, he acquires a right sense of scale and proportion, he learns the proper uses of material and the limitations that material imposes on design, and, perhaps more important than all, is led to realise what factors and what qualities enter into the design of successful architecture.

CORRESPONDENCE.

Architecture and the Public.

29 Dec., 1920

To the Editor, JOURNAL R.I.B.A.—

SIR.—An interesting movement has been initiated in Manchester with the double object of stimulating public interest in good building and developing a greater appreciation of architecture in the builders and workmen. To the Manchester Branch of the Institute of Builders must be given the credit of having taken a lead which it is hoped, will be followed by others. They have obtained the hearty co-operation of the Manchester University and the Manchester Society of Architects, with the result that the following public lectures have been arranged to be delivered at the University:

17th January.—"Is Architecture worth while?" by Mr. Paul Waterhouse, F.S.A.

27th January.—"Imperial Building: What we can learn from Rome," by Mr. W. G. Newton, M.C.

17th February.—"Westminster Abbey and its Buildings," by Professor W. R. Lethaby.

The general public and all those connected with the building industry are invited to attend and no charge will be made for admission.

Mr. H. Matthews, J.P., President, and Mr. John Macfarlane, Vice-President of the Manchester Branch of the Institute of Builders; Prof. A. C. Dickie, Director of the School of Architecture, Manchester

University, and Mr. Francis Jones, Hon. Secretary of the Manchester Society of Architects, and myself have made the arrangements for this short course. It is hoped that this may be only a beginning, and that similar lectures will be held annually.

Apart from these public lectures the Institute of Builders have arranged the following syllabus for their own members:

1st December.—Visit to the Tile and Pottery Works of Messrs. Pilkington at Clifton Junction.

13th December.—Lecture, "The Influence of Building Material upon Architectural Style," by Professor A. C. Dickie.

—January.—Lecture by Mr. Frank Woods.

7th February.—Lecture, "The Training of the Builders' Apprentice," by Mr. D. T. John, Ministry of Labour.

28th February.—Lecture, "The Buildings of Sir Edwin Lutyens, R.A.," by Mr. Hubert Worthington.

14th March.—Lecture, "The Economics of Production," by Mr. S. Turner, of Rochdale.

The Builders' Institute also propose to visit buildings of architectural and historic interest. It is much to be hoped that this admirable example will be followed throughout the country, and that architectural bodies will do all in their power to co-operate.

The efforts of architects themselves cannot produce a great epoch in building without the necessary demand on the part of the public and intelligent execution on the part of the builders and the workmen. In this small beginning we may see the germ of what was recently described as more important than a school of architecture, a school for clients, and, what is just as important, a demand on behalf of the builders themselves for a higher understanding of the meaning and significance of *true* architecture.—Yours, etc.,

HUBERT WORTHINGTON [A.]

The Library.

11, New Court, Lincoln's Inn, 22 Nov., 1920.

To the Editor, JOURNAL R.I.B.A.—

SIR.—I have always been interested in the important question of the housing and safe custody of the Institute's magnificent Library and collections, and I would emphatically urge the Council to give serious consideration to providing further accommodation and introducing simple, economical and efficient safeguards against fire. That further accommodation can be provided for several thousand volumes in the three rooms goes without saying, and I could readily suggest a means to effect this, but there are others more expert and more experienced than myself whom I suggest should be consulted.

With regard to the protection against fire, speaking quite off-hand I would suggest (1) that the book-cases (at least those with valuable contents) be reglazed with fire-resisting glass; (2) that automatic sprinklers be installed in the three rooms (and in the rooms below if the floors are of open timber construction); and (3) that all intercommunicating doorways be fitted on both sides with a water curtain.

By these means at an expenditure of a few hundred pounds little anxiety need be felt in future. Should the objection be raised that the Institute cannot afford this expenditure, I would point out that a library which is worth to the Institute, shall we say £10,000, is presumably insured for this amount. On this basis, therefore, I feel confident that the Insurance Company, were the library fitted with the devices suggested, would give an annual rebate so substantial that capitalised it would represent more than the cost of the installation.

I would like to add my tribute to the Librarian's valuable and interesting Paper, which I trust will have the effect of enlivening the somewhat dormant interest of members in the contents of their Library. Only those who make frequent use of it can understand and appreciate the educational and humanizing occupation of browsing among its volumes with its presiding genius at one's elbow as an informative guide and mentor.—Yours, etc.,

PERCIVAL M. FRASER [F.].

Westminster Abbey.

20th December, 1920.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR.—By an unfortunate clerical error the date under the drawing of Mr Pearson's restoration in my sheet of illustrations published in to-day's issue of the JOURNAL is "1902." The drawing was exhibited in the Academy of 1892, and published in the *Building News* of the 9th December of that year. The work, as is well known, was actually completed in 1891—Yours, etc.,

S. HURST SEAGER [F.].

THE LIBRARY.

Notes by Members of the Literature Committee on Recent Purchases.

[These notes are published without prejudice to a further and more detailed criticism.]

I BIBIENA ARCHITETTI TEATRALI, 1625-1750. 4to. Milan: Alfieri & Lacroix, 1915. 24s. net.

The collection of drawings in the Library includes some interesting examples from the hands of Francesco and Giuseppe Bibiena, two of those eight members of the Galli family who supported the claim of Bologna to her admitted position as home of the leading scenographic artists during the seventeenth and eighteenth centuries. The extraordinary facility of these designers in executing the "prospective" or drawings of imaginary buildings and their bold inventiveness in their compositions are further illustrated in this volume. Most of the plates are from the original drawings in private collections, though several are from the engraved plates of Giuseppe's *Architettura e Prospettiva* of 1740. The portfolio of upwards of one hundred of these designs is accompanied by a useful appreciation of the work of the Bibiena or Galli family, of whom no fewer than six members are represented here.

DRAINAGE AND SANITATION. For the use of Architects, Surveyors, Engineers, Health Officers, Sanitary Inspectors, and for Candidates preparing for the Examinations of Professional Institutions. By E. H.

Blake, 2nd ed., with 379 illustrations specially drawn by the author. 8vo. Lond. 15s. net. [B. T. Batsford, Ltd., 94, High Holborn.]

This is a comprehensive survey of all branches of sanitation in relation to buildings, and valuable information is included on such matters as ventilation, heating, lighting and water supply, as well as numerous well-illustrated examples of sanitary fittings and the details of sewage disposal, etc. The last chapter contains legal notes.

THE MUNICIPAL YEAR-BOOK OF THE UNITED KINGDOM FOR 1920-1921. Roy. 8vo. Lond. 1920. 21s. net. The Municipal Journal, Ltd., Sandringham House, Sandringham Street, W.C.2.

A work which the staff preparing the Civic Survey found of great utility in supplying them with information on all activities under civic or municipal control. It gives full particulars as to the *personnel* of local governing bodies not only in London but throughout England, and of the matters for which they are responsible, such as Water Supply, Electric Supply, Hospitals, Libraries, etc.

A TREATISE ON REINFORCED CONCRETE. By W. Noble Twelvetrees, M.I.Mech.E. Including the New Standard Notation of the Concrete Institute. With a Foreword by E. Flander Etchells, A.M.Inst.C.E., 8vo. Lond. 1920. 21s. net. [Sir Isaac Pitman & Sons, Ltd., Parker Street, Kingsway.]

This is a small but valuable book of about 250 pages, written by a first rate authority on the subject. It contains a large number of useful formulae, but at the same time it avoids elaborate mathematics.

SPONS ARCHITECTS AND BUILDERS' POCKET PRICE BOOK, 1921. Edited by Clyde Young 4th ed. 6s. net. [E. and F. N. Spon, 57 Haymarket.]

A TEXT-BOOK ON SURVEYING AND LEVELLING. By H. Threlfall, M.Sc.Tech., Engineering Lecturer in the College of Technology, Manchester. 1920. 21s. net. Charles Griffin and Co., Ltd., Exeter Street, Strand.]

An octavo volume of 628 pages, with, as conclusion, the graphic presentation of all the diagrams of the chain survey of an actual example. About one-fifth of the book deals with astronomical work, but the remainder sets out very completely all the instruments and methods used in the various kinds of surveying and levelling. The book is illustrated by diagrams in the text and in folding plates, and by illustrations of all the important instruments dealt with in the text.

L'ARCHITECTURE ET LA DECORATION DANS L'ANCIENNE EGYPTE. Par Gustave Jéquier, Professeur d'Égyptologie à l'Université de Neuchâtel. Parts 1 and 2. 50 fr. each part. [Librairie Centrale d'Art et d'Architecture (Ch. Eggmann), 106 Boulevard St. Germain, Paris.]

Each part contains about 75 loose photographic plates, each 20 cm. by 14 cm., in paper cover. The examples selected are from buildings of the XVIIIth Dynasty, and form a valuable collection, much superior to the casual illustrations to be found in popular books. There is no letterpress.

THE EIGHTEENTH CENTURY IN LONDON: An Account of its Social Life and Arts. By E. Beresford Chancellor, M.A., F.R.Hist.Soc. 4to. Lond. 1920. 35s. net. [B. T. Batsford, Ltd., 94 High Holborn.]

A valuable account of the Social Life, Topography, Buildings and Arts admirably illustrated by reproductions

of contemporary prints, drawings and water colours comprising views of buildings no longer with us or surviving in a mutilated condition.

DIE ARCHITEKTUR DES XX. JAHRHUNDERTS:
ZEITSCHRIFT FÜR MODERNE BAUKUNST. Ed.
by Prof. Dr. Hugo Licht. Fo. Berlin 1914. £3.

A collection of handsome and well reproduced photographs of public, commercial and domestic buildings erected between 1900 and the outbreak of the war, valuable as a historical document illustrative of the best architectural work of Germany in the heyday of her "Weltmacht." In spite of the prevalence of the "kolossal" feeling, much of it has great merit and repays study. The text is accompanied by plans.

BAUKUNST UND DEKORATIVE PLASTIK DER FRÜHRENAISSANCE IN ITALIEN. By Julius Baum. 4to 1920. 35s. [Julius Hoffmann, Stuttgart.]

A useful collection of well reproduced photos of the architecture and decorative sculpture of the early Renaissance in Italy. Side by side with the famous examples are others less well known. The views are grouped on a system handy for comparison, viz., façades, courtyards, door and window treatment, tombs, ceilings and chimney-pieces, screens and other church fittings, etc. The text is illustrated by some measured drawings.

THE BOOK OF BUNGALOWS. By R. Randal Phillips.
Editor of "Our Homes and Gardens." Svo. Lond.
1920. 8s. 6d. net. [Offices of *Country Life*.]

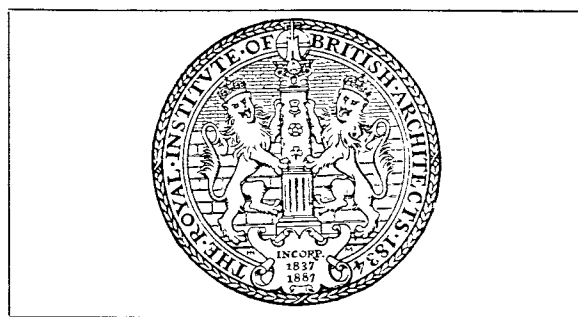
Gifts to the Library.

The President, at the General Meeting last Monday, announced that since the reading of Mr. Dircks's excellent paper on the Library and Collections of the Institute, some interesting presentations had been made to the Library. The first and most important was from Sir Lawrence Weaver [*Hon. A.*] to whose generosity the Institute owed other rare and valuable books. This latest must have been the gem of Sir Lawrence's own collection, for it was the First Edition, published in 1567, of Phihbert de l'Orme's *Le Premier Tome de l'Architecture*, the lack of which made a gap in the Library which Mr. Dircks had commented upon in his paper. The President said that he was sure members would appreciate the generosity of Sir Lawrence's gift when he told them that the British Museum did not possess a copy of this edition.

Another interesting presentation was an autograph letter of Augustus Welby Pugin, dated 14th January, 1841, and addressed to David Charles Read, a painter and etcher who lived at Salisbury. The donor was Mr. Gerald Forsyth.

Mr. Hurst Seager [*F.*], who in the last number of the *JOURNAL* gave the Institute the benefit of his recent researches into the various repairs, alterations and restorations to which the north front of Westminster Abbey has been subject during the last three or four hundred years, has presented a series of photographs of all the available old prints of the north side of the Abbey.

On the motion of the President, a very cordial vote of thanks was passed to the donors of these presents.



9 CONDUIT STREET, REGENT STREET, W., *See Jan.* 1921.

CHRONICLE.

Christmas Greetings.

On Christmas Eve the President of the Institute sent the following telegram to the King :

To His Majesty the King, Sandringham,—

Royal Institute of British Architects submit humble duty to His Majesty their Gracious Patron and offer very sincere wishes for happy Christmas.

SIMPSON, President.

His Majesty's gracious reply from Sandringham was received the same evening as follows :—

President, Royal Institute of British Architects.—

The King sincerely thanks the Royal Institute of British Architects for their Christmas Greetings which His Majesty heartily reciprocates.

PRIVATE SECRETARY.

Proceedings of the Council, 3rd January, 1921.

Bristol Society of Architects.—The Council approve of proposals laid before them by the Bristol Society of Architects for the re-organisation of the Society and the widening of the scope of its activities.

Scale of Fees for Housing.—The Council agreed to co-operate with the Council of the Surveyors' Institution in negotiating with the Ministry of Health in regard to the agreed Scale of Fees for Housing Work.

Retired Fellowship.—The following Fellows were transferred to the Retired Fellowship Class: C. Lohr (*A.* 1878, *F.* 1906), G. D. Oliver (*A.* 1877, *F.* 1892), Edw. Seward (*A.* 1876, *F.* 1889), John Wynne (*A.* 1875, *F.* 1878).

Reinstatement.—Mr. W. A. Gagnon was reinstated as a Licentiate.

Annual Dinner, 1921.—It was decided to hold the annual dinner of the Royal Institute early in the year, and a Committee consisting of Sir Banister Fletcher, Mr. Wm. Woodward, and Mr. Arthur Keen (Hon. Secretary) was appointed for the purpose of making the necessary arrangements.

Professional Defence.—The Council have decided to re-submit to the General Body the scheme for the foundation of a Professional Defence Union which was laid before a Special General Meeting on the 15th June, 1914.

Compulsory Preparation of Town Planning Schemes.

On the recommendation of the Institute Town Planning Committee the following letter has been addressed by the Council to all the Allied Societies of the Institute in Great Britain :—

23rd December 1920.

DEAR SIR.—The Town Planning and Housing Committee of the Royal Institute have had under consideration the probable effect of the following section of the Housing, Town Planning, etc., Act, 1919 :—

Sec. 46 (1). The Council of every borough or other urban district containing on the 1st January 1923 a population according to the last census for the time being of more than 20,000 shall, within three years after that date, prepare and submit to the Local Government Board a town planning scheme in respect of all land within the borough or urban district in respect of which a town planning scheme may be made under the Act of 1909.

The Act thus renders it compulsory after 1923 for all local authorities with a population over 20,000 to prepare a town planning scheme for all land in their area likely to be built upon, and the Council of the Institute deem it essential that in the preparation of such plans the various local authorities should have the assistance of a competent architect or architects.

I am therefore desirous to suggest that each Allied Society in Great Britain should appoint a special Town Planning Committee, with a view to the appointment of a competent architect in each case and to keep in touch with the R.I.B.A. and the various local authorities in their local area.—Yours faithfully,

IAN MACALISTER, *Secretary*.

London Arterial Roads.

On the recommendation of the Institute Town Planning Committee the following letter has been addressed to Sir Henry Maybury, of the Ministry of Transport, on the subject of the construction of arterial roads in the neighbourhood of London :—

23rd December 1920

SIR.—I am directed by the Council of the Royal Institute of British Architects to express their gratification at the action already taken by the Ministry of Transport with regard to the construction of arterial roads in the neighbourhood of London as approved by the London Arterial Roads Conferences held under the auspices of the Local Government Board.

I am also directed to express the hope that the additional roads suggested by the London Society on their development plan will be considered in each case.

I am further desirous to invite your attention to the suggestions of the Thames Side Housing and Development Committee as approved by a conference of the local authorities concerned and indicated upon the accompanying plan and particulars, and to submit the same for favourable consideration.

The Council desire to impress upon the Ministry the paramount importance of immediately preserving the routes of the proposed arterial roads, both in the neighbourhood of London and elsewhere, and to urge

that the authority of Parliament be obtained for this purpose.—I am, Sir, your obedient servant.

IAN MACALISTER, *Secretary*.

The Civic Survey Conference.

The Joint Conference of the R.I.B.A. and the Garden Cities and Town Planning Association, which had been arranged in connection with the Civic Survey Exhibition, was duly held at the Institute on the 14th ult. The President, Mr. John W. Simpson, first addressed a few words of welcome to the members, and the chair was then taken by the Earl of Plymouth [*Hon. F.*]. There were present representatives of the Ministry of Health, the Housing Commissioners of Regions H, K, L, M, representatives of the London County Council, the Medical Officers of Health of Paddington, Ealing, Kingston-upon-Thames, Westminster, Holborn, Finsbury and Richmond; the Town Clerks of Woodford, Ham, Finsbury and Epsom; the Municipal Surveyors or Engineers of Westminster, Harrow, West Ham, Finsbury, and Surton; the Chairmen of the Housing Committees of Willesden, Lewisham and Lambeth; numerous members of the Institute, the Town Planning Institute and the Civic Education League, and representatives of the Regent Street Polytechnic and the Northampton Institute. After a short address by the Earl of Plymouth, Papers were read by Professor Patrick Abercrombie [*F.*], Professor S. D. Adshead [*F.*], Mr. G. L. Pepler and Mr. Raymond Unwin [*F.*], and a long and interesting discussion ensued. Arrangements have been made for a full report of the Conference to be published in the February issue of the *Garden Cities and Town Planning Magazine*, copies of which may be obtained from the office of the Garden Cities Association, 3, Gray's Inn Place, Gray's Inn, W.C., or from P. S. King and Son, Orchard House, Great Smith Street, Westminster—price 1s net. The Civic Survey Exhibition was definitely closed on the 31st ult.

The Housing Subsidy.

It is announced by the Ministry of Health that in consequence of the rejection by the House of Lords of the Ministry of Health (Miscellaneous Provisions) Bill it will not at present be possible to pay the full amount of the subsidy in respect of houses completed during the early months of 1921. In order, however, to keep faith with those who have contracted to build houses on the understanding that the subsidy period would be extended, the Government will introduce legislation at the beginning of next Session of Parliament to provide for payments in full to those completing houses between 23rd December 1920 and the date of the coming into operation of the new Act, and to extend by twelve months the period during which the subsidy can be earned.

The William IV. Statue in the City.

A proposal for removing the statue of William IV. from King William Street to West Ham Park, in order to widen the roadway, was recently before the Court of Common

Council of the City of London. Mr. Arthur Keen, Hon. Secretary of the Institute, pointed out in *The Times* of the 16th December that the idea of removing the statue for the purpose of widening the roadway was absurd; "the difficulties at this point are caused by Billings-gate Market and the cross roads, not by the statue. There is already an ample refuge around its base. A monument that has any bearing on the history of a city should not be removed unless there is urgent need for it." At the meeting of the Court on the 16th ult. a letter of protest was read from the Council of the R.I.B.A., and in the end the proposal to remove the statue was rejected.

Schools of Architecture: New Appointments.

The Council of the University College of South Wales and Monmouthshire have appointed Mr. W. S. Purchon [A.] Part-time Lecturer in Architecture, an appointment he will hold jointly with his Headship of the Department of Architecture and Civic Design at the Cardiff Technical College. This has been done as a preliminary step towards the arranging of Joint Courses in Architecture between the University College and the Technical College.

Mr. T. J. Coombs, A.R.C.A., has been appointed Head of the School of Architecture, Aberdeen, in succession to Mr. T. Harold Hughes [A.]. Mr. Coombs was Head of the School of Architecture in Leeds for thirteen years, during which time the school has grown considerably, and it is now one of the recognised Schools of Architecture in England. Last session a Department of Town-Planning and Civic Design was instituted in connection with the School.

Mr. Joseph Addison [A.] has been appointed Head of the Leeds School in succession to Mr. Coombs.

The Architectural Association of Ireland.

The Architectural Association of Ireland Green Book for the current Session includes the excellent Presidential Address delivered by Mr. George F. Beckett last Session, and a portrait of the new President, Mr. John C. Dewhurst [A.], whose career is described, in four pages of verse, from the day "he lay in cradle-crowling" till his accession as "President with acclamation, Head of our Association." Prizes open this year to members of the Association are (1) a Prize of Ten Guineas offered by the Royal Institute of the Architects of Ireland for the best design for An Entrance to an Important Bank or Insurance Office, having a frontage of 70 feet in College Green, Dublin; (2) the President's Prize of Three Guineas for the best design for a Dwelling House suitable for a small Farmer; (3) The Vice-President's Prize of Two Guineas for the best design for an inch-scale detail, half plan, half elevation and section of a Shop Front; (4) the Downes' Bronze Medal for the best Measured Drawings of any building or part of a building in Ireland, or elsewhere, or the best collection of details of buildings, erected before 1820; (5) Prizes of Three Guineas, Two Guineas, and One Guinea respectively for the classes in Design at the Metropolitan School of Art, Dublin.

THE EXAMINATIONS.

Increase of Entrance Fees.

The entrance fees for the Institute Examinations are now as follows:—

Preliminary	64	4	0
Intermediate	5	5	0
Final	6	6	0
Special Final	10	10	0
Special Overseas	10	10	0

COMPETITIONS.

New Council Chamber, Calcutta.

Architects are invited to submit designs in competition for the proposed Council Chamber to be built in Calcutta for the Legislative Council of Bengal. Premiums of ₹500, ₹250 and ₹100 will be awarded to the authors of the designs placed first, second and third respectively by the Assessor, Mr. Henry A. Crouch [F.], Consulting Architect to the Government of Bengal. The author of the design placed first will be appointed to carry out the work in accordance with the R.I.B.A. Scale of Professional Charges. Conditions of the Competition are to be obtained from the Secretary, Public Works Department, India Office, Whitehall.

Canadian Battlefields Memorials.

The Dominion Government has decided to hold a competition for the design of the Canadian memorials that are to be erected on the battlefields of France. The Assessors will be Mr. Frank Darling [F.], representing the Royal Architectural Institute of Canada; Monsieur Paul P. Cret, nominated by the Société Centrale des Architectes Français to represent the architects of France, and Professor C. H. Reilly [F.], of Liverpool, who has been appointed by Mr. John W. Simpson to represent the R.I.B.A. The Assessors will assemble in Canada in the spring to arrange the details of the competition.

New York's Skyscrapers.—Perhaps if I had reached New York from the sea the skyscrapers would have struck me more violently. But I had already seen a few in San Francisco (and wondered at and admired the courage which could build so high after the earthquake of 1906), and more in Chicago, all ugly; so that when I came to New York and found that the latest architects were not only building high, but imposing beauty on these mammoth structures, surprise was mingled with delight. No matter how many more millions of dollars are expended on that strange medley of ancient forms which go to make up New York's new Cathedral, where Romanesque and Gothic seem already to be ready for their divorce, the Woolworth Building will be New York's true fane. Whoever designed that graceful immensity (I have since met the architect in London: Mr. Cass Gilbert) not only gave commerce its most notable monument (to date), but removed for ever the slur upon skyscrapers. The Woolworth Building does not scrape the sky; it greets it, salutes it with a *beau geste*. And I would say something similar of the Bush Building, with its alabaster chapel in the air that becomes translucent at night, and the Madison Square Tower (whose clock face, I noticed, has the amazing diameter of three storeys), and the Burroughs Welcome Building on 41st Street, with its lovely perpendicular lines, and that immense cube of masonry on Park Avenue which bursts into flower, so to speak, at the top in the shape of a very beautiful loggia. But even if these adornments become, as I hope, the rule, one could not resent the ordinary structural elephantiasis a moment after realising New York's physical conditions. A growing city built on a narrow peninsula is unable to expand laterally and must, therefore, soar. The problem was how to make it soar with dignity, and the problem has been solved.—E. V. Lucas in *The Times*.

MINUTES. V.

At the Fifth General Meeting (Business) of the Session 1920-21, held Monday, 3rd January, 1921, at 8 p.m.—Present: Mr. John W. Simpson, President, in the chair: 28 Fellows (including 14 members of the Council) and 14 Associates (including one member of the Council), the Minutes of the Meeting held 13th December, having been published in the JOURNAL, were taken as read and signed as correct.

The following members attending for the first time since their election were formally admitted by the President: Frederick Willey, County Education Architect (Durham), *Fellow*, and Thomas Edward Scott, *Associate*.

The Hon. Secretary announced the decease of the following members: Joseph Smith, elected *Fellow* in 1899, Past President of the Sheffield Society of Architects and representative of that body on the Institute Council; James Webster, *Associate*, 1881; Daniel John Ebberts, *Associate*, 1878-1910; Frederick Chambers, *Licentiate*.

The President announced the following presentations to the Library, and a vote of thanks was passed by acclamation to the donors: the First Edition (1567) of Philibert de l'Orme's *Le Premier Tome de l'Architecture*, presented by Sir Lawrence Weaver, K.B.E., F.S.A. [*Hon. A.*]; autograph letter from Augustus Welby Pugin to David Charles Read, painter and etcher, presented by Mr. Gerald Forsyth; 14 photographs of Westminster Abbey taken from old and rare engravings, presented by Mr. S. Hurst Seager [*F.*].

The following candidates for membership were elected by show of hands:—

AS FELLOWS (1909).

CLARKE: JOHN DANIEL [*A.* 1903], Eastbourne.
 CONSTANTINE: HARRY COURTENAY [*A.* 1909].
 COUCH: WILLIAM EDWARD [*A.* 1903].
 DAWSON: MATTHEW JAMES [*A.* 1907].
 FULTON: JAMES BLACK [*A.* 1906], Glasgow.
 GAGE: CHARLES HENRY [*A.* 1901].
 HIGGINS: FREDERICK ROBERT [*A.* 1899].
 HOLDEN: CHARLES HENRY [*A.* 1906].
 KENNARD: JOHN HAROLD [*A.* 1910].
 KEYS: PERCY HUBERT [*A.* 1907], Singapore.
 LONG: CHARLES WILLIAM [*A.* 1911].
 MANFIELD: LESLIE [*A.* 1911].
 PIERCE: ROBERT A.P.C.A. [*A.* 1909], Carnarvon.
 STEWARDSON: ROBERT ERNEST [*A.* 1904], Shanghai.
 TRAQUAIR: RAMSEY [*A.* 1900], Montreal.
 WARREN: PERCY FRANCIS [*A.* 1908], Yeovil.
 WILLS: JOHN BERTRAM [*A.* 1909], Bristol.

And the following Licentiates who have passed the qualifying examination:—

ADKINS: JOHN STANFEN.
 ALEXANDER: SAMUEL GRANT, M.B.E., J.P., Inverness.
 ARMOUR: JOHN, Irvine, Scotland.
 ARTHUR: JOHN MAURICE, C.M.G., D.S.O., Andrie.
 BARKER: ROGER BRADLEY, Plymouth.
 BENTLEY: ARTHUR FRED COLLINS.
 BLAIN: WILLIAM JOHN, Glasgow.
 BLAKELY: RICHARD PALIN, Alberta, Canada.
 BOSWELL: GEORGE ARTHUR, Glasgow.
 BROADBENT: FRED, Leeds.
 BROWN: WILLIAM, Motherwell.
 BRUNTON: FREDERICK SEYMOUR.
 BUNCH: ARTHUR CHARLES, Winchester.
 CAVE: AYLWIN OSBORN, Letchworth.
 CHURCH: ARTHUR HAROLD, J.P.
 CRAIGIE: JAMES HOVEY, Glasgow.
 CRANE: LIONEL FRANCIS.
 DANIEL: THOMAS BRAMMALL.
 DAVIDGE-PITTS: HENRY, Mossel Bay, S. Africa.
 DAVY: CLIFTON ROBERT.
 DOLMAN: WILLIAM LEDSHAM, Windersore.
 DUNN: JOHN GLEN, Cambuslang.

DURLACHER: ALEXANDER PERCY, A.M.I.C.E., F.S.I.
 DUNST: AUSTIN, M.A. Cantab.
 DUSSAULT: LEONARD LOUIS, Birmingham.
 EKINS: LEONARD GRAY.
 ENGLISH: CHARLES WILLIAM.
 EWEN: ARTHUR JOHN CHILFORD.
 FERMAUD: EDMUND AUGUST.
 FLOYD: FRANCIS HAYWARD, Newbury.
 FORSTER: JOSEPH, Chisle.
 GALL: ERNEST SEWELL.
 GARDNER: HARRY RICHARD.
 GARLICK: FRANCIS JOHN.
 GASKILL: PETER, J.P., Hull.
 GOODHAM: HENRY ROBERT.
 GRAHAM: PATRICK HAMILTON, Wellington, N.Z.
 GRINDY: SAMUEL, JNR., Ulverston.
 GURNEY: ARTHUR EDWARD, Warsaw.
 HALL: JOSEPH LOCKWOOD, Cape Town.
 HARBRON: GEORGE DUDLEY, Hull.
 HASLOCK: WILLIAM EDWIN, Middlesbrough-on-Tees.
 HENDERSON: HAROLD EDGAR, Nairobi.
 HIGNETT: CECIL HORACE, Letchworth.
 HOLMAN: GEORGE EDWARD, Lieut.-Col.
 HOLTON: EDWARD GIBBS, Holt, Norfolk.
 HOUSTON: JOHN ALFRED TAYLOR, Glasgow.
 HUXLEY: WILLIAM SHERRIN, M.C., Kuala Lumpur.
 HYAMS: HENRY.
 JACKSON: THOMAS GORDON.
 JERDAN: JOHN, Edinburgh.
 JONES: HUGH GRIFFITH, Montreal.
 JONES: RONALD POTTER, M.A. Oxon.
 JUPP: SYDNEY.
 LONSDEN: REGINALD THELWALL, Stoke-on-Trent.
 LUNAN: THOMAS MELVILLE, Glasgow.
 MACOS: LEONARD, Nottingham.
 MALCOLM: ALEXANDER NISBET, Falkirk.
 MILLAR: THOMAS ANDREW, Glasgow.
 MORGAN: CECIL HERBERT, Darjeeling.
 NILES: HAMILTON, Glasgow.
 NICHOLS: WILLIAM HENRY, Madras.
 NORMAN: GEOFFREY.
 NORTON: CHARLES HARROLD.
 PALMER: FREDERICK CHARLES RICHARD.
 PATERSON: GEORGE ANDREW, Glasgow.
 PEACOCK: THOMAS REID, Quebec.
 PEARSON: LIONEL GODFREY.
 PETTER: JOHN, Yeovil.
 PHIPPS: PAUL, B.A.
 PORTER: BERNARD ARTHUR, Birmingham.
 PRYSTON: ARCHIBALD FREDERICK.
 REYNOLDS: EDWIN FRANCIS, Birmingham.
 SAUNDERS: JOHN THOMAS.
 SHEPPARD: JOHN MORIMIE, P.S.A.I.
 SIDWELL: HENRY THOMAS, Rayleigh.
 SIMSTER: ERNEST, Oldham.
 SINCLAIR: COLIN, M.A., F.S.A. [Scot.], Glasgow.
 SNEIL: JOHN SAXON.
 SPINK: HERBERT, Windsor.
 SPOOR: STANLEY MILES.
 STOLL: JOHN, Wislaw.
 STEWART: JOHN, Glasgow.
 STILL: JOHN EDWARD.
 SWAN: JAMES HENRY, 8 Clifford's Inn, E.C.
 THOMPSON: ALBERT JOHN, Cape Town.
 WALKER: WILLIAM, St. Andrews.
 WIER: WILLIAM MAY.
 WHITBURN: HENRY ALFRED.
 WILLIAMS: RICHARD JOHN, Kettering.
 WILSON: THOMAS MILWOOD.
 WINDSOR: FRANK.

AS ASSOCIATES (72).

ADAMS: WALTER ALWYN COLE [S. 1912, Special War Exception].
 BARNITT: PERCY WILLIAM [Special War Exception].

- BRITS: ALBERT WM [Special War Exam.], Nottingham.
 BRADON: CHAS. ARTHUR [Special War Exam.], Liscaul.
 BRANWELL: JAMES STONEMAN [Special War Examination], Liverpool.
 BRYFITT: AUGUSTUS [Special War Examination].
 CATON: WILLIAM COOPER [Special War Examination], Hove, Sussex.
 CHERRY: STANLEY VICKERSTAIR [Special War Examination], Nottingham.
 CLIFTON: EDWARD NOEL [Special War Examination].
 CONNOL: HAROLD JOHN [Special War Exam.], Derby.
 CRAIG: WILLIAM HUGHSTON [Special War Examination], Melbourne.
 DATE: FREDERIC CHARLES CANTRELL [Special Final Examination].
 DAVIDSON: GERALD, B Aitch Liverpool [S. 1919, Special War Examination], Hoylake.
 DEMESTER: JOHN AUSTIN [Special War Examination].
 DOLL: MORDAUNT HENRY CASPERS, M.A. Cantab [Special War Examination].
 ELSWORTH: WILLIAM [Special War Exam.], Liverpool.
 EMBERTON: JOSEPH [Special War Examination].
 EVANS: ERIC FWART [Special War Examination], Cloughton, Cheshire.
 FEIRN: JOHN LAURENCE [Special War Examination], Witleim 16.
 FORBIE: ALEXANDER GARDEN [Special War Examination], Leith.
 FOWLER: CYRIL WILLIAM [Special War Examination].
 FRANCIS: BERNARD THOMAS [Final Examination], Doby.
 FRICHELLEY: GEORGE BOWEN [Special War Examination].
 GODFREY: FREDERICK WILLIAM [Special War Exam.].
 GOLDING: WILLIAM ARTHUR [Special War Exam.], Natal.
 GREGORY: WILLIAM JOHN HENRY [Special War Examination], Liverpool.
 HALHIDE: FREDERICK WM. [Special War Examination].
 HALL: GEORGE LANGLEY DESMOND [Special War Examination].
 HAMLYN: WILLIAM HENRY [Special War Examination].
 HARRIS: FRANK CHAMBERS [Special War Examination].
 HARRIS: LE LIE YOUNGMAN [S. 1912, Special War Exemption], Nottingham.
 HILL: GOTTREY WALKER [S. 1912, Special War Exemption], Harrogate.
 HOWARD: CHARLES VINCENT [Special War Examination].
 JONES: ROBERT DAVID [Special War Examination], Portmadoc.
 LANCRISH-TOYLL: FREDERICK CHARLES [S. 1912, Special War Exemption].
 LAWELL: WILLIAM GRINDLAY [Special War Examination], Sydney.
 LAWS: HORACE HUBERT [Special War Examination].
 LAWSON: PHILIP HUGH [Special War Examination], Chester.
 LEWIS: HORACE MELSHAM [Special War Examination], Wokingham.
 LEWIS: WILLIAM JOHN [S. 1911, Special War Exemption].
 LOVELEY: WILLIAM TAYLOR [Special War Examination], Rugby.
 LOW: SIMPSON [Special War Examination], Dyce, Aberdeenshire.
 MCCALLUM: MALCOLM SINCLAIR [S. 1913, Special War Exemption], Banffshire.
 MACFARLANE: GEORGE GORDON, B.Sc., M.C. [Special War Examination].
 MACKINTOSH: WILLIAM [Special War Examination].
 MARR: EDMUND TOWNLEY [Special War Examination].
 MARINDALE: CHRISTOPHER JAMES LAWCETT [Special War Examination], Cuthle.
 MITCHELL: ANDREW M. M. [S. 1912, Special War Exemption].
 MOREHEAD: GERARD LEENDERT PIETTER [Final Examination], Johannesburg.
 NEWBICK: FREDERICK HUBERT [Special War Examination], Sunderland.
 NORBURN: GEORGE BERTRAM EDWARD [Special War Examination].
 PATON: ARCHIBALD GILCHRIST [S. 1920, Special War Exemption], Glasgow.
 PEARCE: OSWALD DUNCAN [Special War Examination].
 PETERS: THOMAS JAMES [Special War Examination], Newcastle-on-Tyne.
 PILL: ROBERT WILLIAM [Special War Examination].
 REID: HERBERT HENRY [Special War Examination], Aberdeen.
 ROSS: WILLIAM ALEXANDER [Special War Examination].
 ROUSE: EDWARD HENRY [Special Final Examination], Hankow.
 RICHMAN: WALTER, M.C. [Special War Examination], Chippenham.
 SHATTOCK: LAWRENCE HENRY [Final Examination].
 SPENCE: WM. NICHAM [S. 1914, Special War Exemption], Ranelagh, Dublin.
 STEPHENS: PHILIP MORIS EDWIN [Special War Examination], Penzance.
 STEVENS: FREDERICK JOHN [S. 1912, Special War Exemption].
 SUNTER: MICHAEL CALVERT [Final Examination], Manchester.
 SUSNOT: RAYMOND, M.C. [Special War Examination], Sydney, Australia.
 THOMAS: EDWARD JOHN [S. 1919, Special War Exemption], Cardiff.
 VERELIFE: ROBERT LOREF [Special War Examination], Swansea.
 WATSON: HAROLD [Special War Examination], Otley, Yorks.
 WELSH: STEPHEN [Special War Examination], Forfar, Scotland.
 WHARF: HENRY FRANCIS [Special War Examination], Hull.
 WILSON: PERCY [Special War Examination], Scutap 16, Lancs.
 WINDER: RICHARD HENRY, M.A. [S. 1920, Special War Exemption], Oldham.
- AS HONORARY FELLOW.
- CRAWFORD AND BAICARRETS, THE RIGHT HON. THE EARL OF, F.S.A.
- AS HONORARY ASSOCIATE
- CRESWELL: KIPPET ARCHIBALD CAMERON, M.R.A.S., Inspector of Ancient Monuments, Palestine.
- The proceedings closed and the Meeting terminated at 8.30 p.m.

NOTICES.

APPLICATIONS FOR MEMBERSHIP.

ELECTION, 28TH FEBRUARY, 1921.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 31st January:—

AS FELLOW.

DEWHURST: JOHN CADWALLADER [4. 1895, Engineer's Office, Incemore, Dublin; 37 Eglinton Road, Dennybrook, Dublin.

AS ASSOCIATES (53).

ALLDERIDGE: CHARLES DONALD [Special War Examination], "Hawthornes," Cardigan Road, Bridlington.
 BALMER: STANLEY [Special War Examination], 60 Lovers' Sweep, Clapham Common, S.W.11.
 BERTON-BENJAMIN: HORACE [Special War Examination], 28 Old Burlington Street, W.1.
 BROWN: JOHN, Lieut.-Col., D.L., D.S.O. [S. 1909, Special War Exemption], 80 Abington Street, Northampton.

BULSTRODE: STANLEY CUDWIN [Special War Examination], 13 Scur Road, Christchurch, Hants.
 BURKE: JOAN EDWARD [Special War Examination], 120 North Circular Road, Dublin.
 BURLING: HAROLD [Special War Examination], 7 Pirory Road, West Hill, Hastings.
 BURNETT: PERCY VIVIAN [Special War Examination], 18 Redcliffe Gardens, S.W.10.
 CLARKSON: GEORGE FLINT [Special War Examination], 32 Great Ormond Street, W.C.1.
 COLLINS: HENRY RICHARD [Special War Examination], 26 Bateman Street, Cambridge.
 COULDRY: WALTER NORMAN [Special War Examination], 19 Palace Avenue, Paignton, Devon.
 DANGERFIELD: BERNARD, M.C. [Special War Examination], "Eastcote," 25 Lyndhurst Gardens, Church End, Finchley, N.3.
 DANGERFIELD: PAUL [Special War Examination], Westcott, Battlemore Road, St. Albans.
 DAVIDSON: SAMUEL [Special War Examination], 8 Great King Street, Edinburgh.
 DAVIDSON: WILLIAM ALEXANDER [Special War Examination], 31 Hartington Road, Aberdeen.
 DIXON: PERCY SIDNEY [Special War Examination], 128 Algernon Road, Lewisham, S.E.13.
 FARNSHAW: HAROLD HICKS [Special War Examination], 23 Missie Street, Cleddle, Cheshire.
 FELTHAM: STANLEY CRATHERN [Special War Examination], 126 Broadwater Road, Bruce Grove, Tottenham.
 GEARY: FRANK GEORGE [Special War Examination], 29 Lyndhurst Avenue, Streatham Hill, S.W.2.
 GORDON: ALEXANDER [Special War Examination], 24 Mugiemoss Road, Bucksburn, Aberdeenshire.
 GRUMMANT: REYNOLD THOMAS [Special War Examination], Melrose, 164 Hainsey Lane, Highgate, N.6.
 HOLT: FELIX [Special War Examination], 14 Cook Street, Liverpool.
 HORTH: FREDERICK JOHN [Special War Examination], 19 Albany Street, Hull.
 HOWARD: STANLEY BOOTHBY [Special War Examination], 23 Catharine Street, Liverpool.
 HUGHES: HENRY CASTLE [Special War Examination], 4 Trumpington Street, Cambridge.
 JACKSON: BASIL HEDDLEY [Special War Examination], Eagle House, Wimbledon.
 KAYE: STEWART [Special War Examination], 16 Rutland Square, Edinburgh.
 KEARNE: LESLIE HAMILTON [Special War Examination], 2 Rothwell Street, Regent's Park, N.W.
 KEER: ROBERT SIDNEY [Special War Examination], Grafton House, 2 Golden Square, W.1.
 LUMB: JOSEPH HAYDN [Special War Examination], 67 Bootham, York.
 MACPHERSON: DONALD [Special War Examination], 15 The Hawthorns, Regent's Park Road, Finchley, N.
 MAILARD: FRANCIS ALIAS [Special War Examination], 14 Rothwell Street, Regent's Park, N.W.1.
 MANN: STEPHEN [Special War Examination], Blencoe, Wigton, Cumberland.
 NIGHTINGALE: FREDERICK BAYLISS [Special War Examination], 47 West Side, Wandsworth Common, S.W.
 PICKFORD: ASTON CHARLES [Special War Examination], 108 Fernside Road, Wandsworth Common, S.W.12.
 REID: ALEXANDER WILLIAM DOUGLAS, B.A. [Special War Examn], Brown Cottage, Ovalway, Gerard's Cross.
 RICHARDSON: FRANK [Special War Examination], Caterlands House, Twickenham, Middlesex.
 RICHARDSON: JOHN [Special War Examination], Endsleigh House, 32 De-la-Pole Avenue, Hull.
 ROSS: LESLIE OWEN [Special War Examination], 31 Moreton Place, Belgrave Road, S.W.1.
 SANDERS: JOHN EDWARD [Special War Examination], 208 Beach Street, Liverpool.

*SHORT: ERNEST WILLIAM GEORGE, Lieut.-Col. [S. 1896, Special War Exemption], Poplar Lodge, Sidbous Road, Forest Hill, S.E.23.
 SILVER: EDWIN RUSSELL [Special War Examination], 31 Rockfield Avenue, Muswell Hill, N.10.
 SMITH: JOSEPH SUMMERSGILL [Special War Examination], 2 Stumperlowe Avenue, Fulwood, Sheffield.
 THOMAS: HUBERT ARTHUR [Special War Examination], 51 North John Street, Liverpool.
 WALKER: FREDERICK ARTHUR [Special War Examination], 8 Buckingham Street, Adelphi, W.C.2.
 *WEBSTER: FRANCIS POOL [S. 1909, Special War Exemption], 12 Montgomery Road, Sharrow, Sheffield.
 WHITLURN: ALGERNON STUART [Special War Examination], "Elm Croft," Woking, Surrey.
 WHITEY: CHARLES [Special War Examination], 69A King's Road, Chelsea, S.W.
 WHITE-COOPER: RUFERT CHARLES [Special War Examination], 22 Redcliffe Street, Earl's Court, S.W.10.
 WILSON: HARRY ERNEST [Special War Examination], 10 Lordship Park, N.16.
 WOOD: WILLIAM WALTER [Special War Examination], 154 Forest Hill Road, Forest Hill, S.E.23.
 WOODHOUSE: BRIAN WILLIAM [S. 1911, Special War Exemption], 35 Brighton Street, Heckmondwike, Yorks.
 WORMUM: GEORGE GREY [Special War Examination], 7 Gray's Inn Place, W.C.1.

AS HONORARY CORRESPONDING MEMBER.

LOUVET: ALBERT, President of the Société des Architectes Diplômés par le Gouvernement, 59 Rue de Grenelle, Paris.

AS HONORARY ASSOCIATE.

PLEMEL: WILLIAM T., Editor of *The Builder*, 4 Catherine Street, Strand, W.C.

*The 3 applicants marked * have been the subject of special consideration by the Council and their names are put forward as special cases in accordance with recommendations Nos. 2, 3, and 4, passed at the Conference with representatives of Allied Societies on the 19th January 1920 and unanimously approved by the Council on the 2nd Feb. 1920.—JOURNAL 21st February 1920 pp. 178-79.

General Meeting, 17th January, 1921.

THE SIXTH GENERAL MEETING (ORDINARY) of the Session 1920-1921 will be held MONDAY, 17th JANUARY, 1921, at 8 p.m., for the following purposes:—

To read the Minutes of the Meeting held 3rd January, 1921; formally to admit members attending for the first time since their election.

To read the following Paper:—

"THE RESTORATION OF PRAENESTE."

By H. CHALTON BRADSHAW [A.], *Rome Scholar*.

To read the Council's DEED OF AWARD OF PRIZES AND STUDENTSHIPS, 1920-21.

WANTED, in a Municipal Office, an Architectural or Civil Engineering Draughtsman experienced in the general design of miscellaneous structures and with knowledge of surveying and levelling. Should be under forty and capable of taking entire charge of office with small staff of assistants and clerks or works under him. Salary, with bonuses, about £534 per annum. Pension at 65 on the old Præmury scale. Address: Box 8129, Secretary R.I.B.A., 9 Conduit Street, W.

A R.I.B.A. (P) desiring to move south wishes to obtain partnership in South of England town. Some capital available. Twenty years experience general practice, especially domestic, school, hospital and asylum work. Design and quantities (London method). Reply: Box 3121, Secretary R.I.B.A., 9 Conduit Street, W.

PROFESSIONAL ASSISTANCE of all kinds rendered. Own office. Address: C. Ashworth, Dome Buildings, Richmond, Surrey.

PARTNER WANTED.—A R.I.B.A. in charge of housing scheme in Oxfordshire seeks salaried partner prepared to live in the country. Address: Box 1121, Secretary R.I.B.A., 9 Conduit Street, W.

A R.I.B.A. (Grisel Gold Medalist), P.A.S.I. (Building Prizeman) and Silver and Bronze Medalist in Construction prepared to enter into working partnership with other architects. London or Provinces. Address: Box 7121, Secretary R.I.B.A., 9, Conduit Street, W.

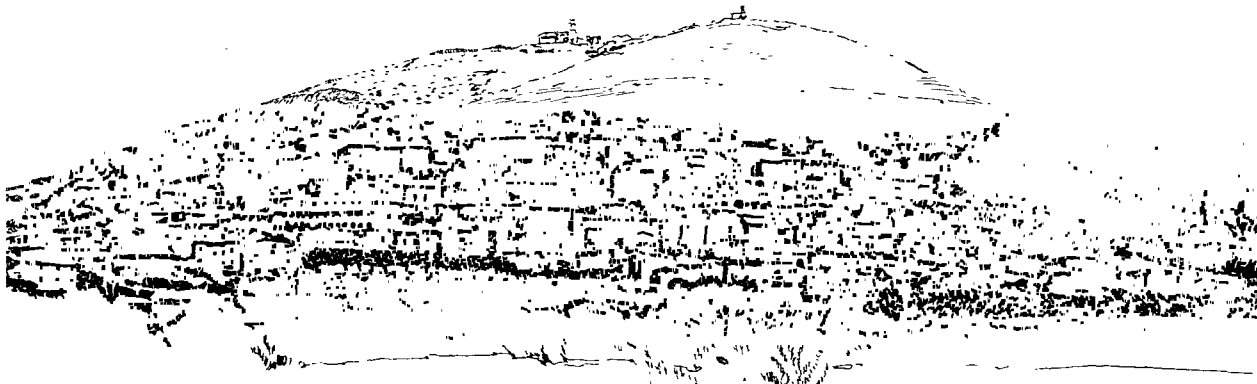


FIG. 1—VIEW OF PALESTRINA.

PRAENESTE: A STUDY FOR ITS RESTORATION.*

By H. CHALTON BRADSHAW [A.], *Croce di Guerra*, Rome Scholar in Architecture.

Read before the Royal Institute of British Architects, Monday, 17th January, 1921.

THE town of Praeneste† (modern Palestrina) lies about 23 miles east of Rome on the slope of Monte Glicestro, a spur of the Apennines, where the limestone of the mountains runs down into the volcanic plain. The town faces nearly due south towards the Alban Hills, and is in a position of great natural strength, which was made still stronger by artificial means. Strabo‡ mentions it with Tibur as a stronghold, and adds that as such it was the more redoubtable of the two. Its climate is healthy and cool, compared with that of the plain, and in Imperial times it was a favourite resort of those who wished to escape from the heat of the Roman summer.

The origin of Praeneste is quite unknown. Various contradictory legends are given of its foundation. It was attributed by Virgil§ to Caecubus, son of Vulcan, probably following the popular tradition, but by others to Telegonus, son of Odysseus, or to Praenestos,¶ his grandson. These last traditions give some colour to the statement made by Strabo in the passage referred to above, that both Tibur and Praeneste were believed to be Greek in origin, Praeneste being originally called Polystephanos** (the Many-crowned).

The earliest settlement was probably on the acropolis (now Castel S. Pietro), which at an early date was connected by long walls of Cyclopean masonry with the town which grew up round the sanctuary of Fortune on the lower slope of the mountain. The natural strength of Praeneste and its

* In preparing the archaeological part of this paper I have to thank my wife, who, as the holder of a Travelling Studentship from Newnham College, Cambridge, has collaborated with me throughout, and also Dr. Thomas Ashby, who used his expert knowledge of topography and bibliography unsparingly on my behalf.

† For further details with regard to the history of Praeneste, see E. Fernique, *Étude sur Préeste*, Part I. (Histoire de la ville de Préeste). R. Van Deman Magoffin, *Topography and Municipal History of Praeneste*, Part II. (Municipal History); also the preface to the Inscriptions from Praeneste, *C.I.L.* xiv. p. 288.

‡ Strabo, v. 3, 11: Πραινεστός δ' ἐστὶν ὅπου τὸ τῆς Τύχης ἱερὸν ἐπίσημον χρηστηρίαν ἀμφότεραι δ' αἱ πόλεις αὐταὶ τῇ αὐτῇ προσιδρύμεναι τυγχάνουσιν ὀρεινῇ. διέχουσι δ' ἀλλήλων ὅσον σταδίου ἑκατὸν, τῆς δὲ Ῥώμης Πραινεστός μὲν καὶ διπλάσιον. Τίβουρα δ' ἑλαττον. φασὶ δ' Ἑλληνίδας ἀμφοτέρων Πραινεστόν γοῦν Πολυστέφανον καλεῖσθαι πρότερον. ἐρινυμένη μὲν οὖν ἑκατέρα πολὺ δ' ἐρινυμότερα Πραινεστός· ἄκραν γὰρ ἔχει τῆς μὲν πόλεως ὑπερθεῖν ὅρος ὑψηλόν, ὅπως δ' ἀπὸ συνεχούσης ὀρεινῆς αὐχένι διζενυμένον, ὑπεραίρον καὶ δυοὶ σταδίοις τοῦτον πρὸς ὄρθιαν ἀνάβασιν. πρὸς δὲ τῇ ἐρινυμότητι καὶ διώρυνει κρυπταῖς διατέτρηται πανταχόθεν μέχρι

τῶν πεδίων ταῖς μὲν ὑδρείας χάριν ταῖς δ' ἐξόδων λαθραίων, ὧν ἐν μιᾷ Μάριος πολιορκούμενος ἀπέθανε.

** At Praeneste is the notable shrine of Fortune with its oracle. Both of these towns (sc. Praeneste and Tibur) are situated on the same range of mountains and are 100 stades distant from one another. Praeneste is twice as far from Rome, Tibur less. It is said that both are of Greek origin, and that Praeneste was formerly called Polystephanos (the Many-crowned). Both are strong places but Praeneste is far the stronger. For as citadel above the city it has a lofty mountain divided from the ridge by a narrow neck, above which it towers for two stades in direct ascent. Besides being naturally strong the site is pierced in all directions right down to the plain by secret tunnels, some for the sake of water and some to serve as hidden exits. In one of these, while he was besieged there, Marius died.

§ Virgil, *Aeneid* vii. 677-679.

¶ Plutarch, *Parallel*, 41.

¶ Steph. Byz. s.v. Πραινεστός.

** This name seems particularly suitable when we consider the walls which surround the city and support the terraces rising one above the other on which it is built. Cf. Nissen, *Landeskunde*, ii. p. 620.

position commanding both the way into the land of the Aequi up the valley of the Liris and also the pass of Algidus, the principal routes between Northern and Southern Italy, together with the fame of its oracle, combined to make it one of the most important towns of Central Italy.

Finds of ivory and bronze* in the necropolis prove that as early as the eighth or seventh centuries B.C. it had dealings not only with Etruria but with Phoenicia and the East, while the later "cistae Praenestinae," or incised bronze caskets, and mirrors testify to its continued prosperity in the third and second centuries B.C.

In the earliest historical times Praeneste was probably a member of the Latin League whose head was Alba Longa. At any rate Livy† tells us that in 499 B.C. it withdrew from the League and formed an alliance with Rome. This early friendship did not, however, prevent Praeneste from becoming one of Rome's greatest adversaries during the years of her struggle for the headship of Latium, which was finally achieved in the Latin War, 340-338 B.C. Even after the triumph of Rome, Praeneste, though deprived of part of her territory, was not absorbed in Rome, but remained an allied city. During the Second Punic War in 216 B.C.‡ Praeneste showed its loyalty by the feats of the heroic band of its citizens who, under M. Anicius, after the defeat at Cannae, defended Casilinum against Hannibal. These men refused the Roman citizenship offered by the Senate in recognition of their deed, and Praeneste remained a separate community until the Social War, B.C. 90, when, with other towns which had not rebelled or which had laid down their arms at once, it received the full franchise and became a Roman Municipium.§

During the Civil War, B.C. 82, the younger Marius took refuge at Praeneste after the battle of Sacriportus, and Sulla blockaded the town. On its surrender Marius committed suicide and Praeneste was punished by the slaughter of its male inhabitants, the loss of its privileges as a Municipium, and the settlement of a military colony on part of its territory. Soon after this Sulla, who called himself the favourite of Fortune, largely remodelled the city, placing the forum at the foot of the hill in the plain and rebuilding the Temple of Fortune on a large scale, so that it occupied much of the site of the earlier town.

From this time Praeneste seems to have changed its character. Its fine scenery and healthy climate made it popular with wealthy Romans. Villas were built on the plain below and on the neighbouring hills, and Horace¶ ranks it with Tibur and Baiae as a health resort. Augustus** stayed there, and it was in gratitude for recovery from an illness in a villa near that Tiberius†† restored to the town the position of Municipium. It was patronised by other emperors, including Hadrian, who probably built the large villa on the site of the modern Campo Santo in which the famous Antonius Brascchi was found,‡‡ and Marcus Aurelius. Pliny the Younger,§§ and Symmachus, were among the private persons who possessed villas near Praeneste.

From the earliest times the fame of Praeneste was bound up with that of the sanctuary and oracle of the Goddess Fortune, who was here worshipped as Primigenia or "First-born" (of Jupiter). The oracle delivered its responses by means of "lots" or slips of wood with letters carved upon them. These were supposed to have leapt from the rock when it was cleft by a certain Numerius Sufustius, according to Cicero,¶¶ who gives the legend of their origin and also the most important reference to the shrine found in any ancient writer.

It is uncertain how soon the oracle became famous outside Latium, but the fact that during the

* Many of the finds are in the Villa Giulia Museum, Rome. Helbig¹, n. pp. 312 ff., and also C. Densmore Curtis, *Memoirs of the American Academy in Rome*, vol. II.

† Livy, II, 19.

‡ Livy, VIII, 17.

§ By the *Leges Juliae* and *Plautia Papiria*.

¶ Pliny, *H.N.* 36, 25, confirms this by his mention of the "lithostroton" with which Sulla adorned the pavement of the "delubrum" of Fortune at Praeneste.

• Horace, *Odes*, III, 3.

• Suetonius, *Aug.* 72.

†† Aulus Gellius, XVI, 13.

‡‡ Helbig¹, n. 289, p. 191. The brick stamps prove the villa to have been built in the reign of Hadrian.

§§ Pliny, *Epist.* V, 6.

¶ Symmachus, *Epist.* I, 2, III, 59.

¶¶ Cicero, *De Divinatione*, II, 41; see below, p. 152.

First Punic War the Consul Lutatius Cerco* wished to consult the lots but was not allowed by the Senate on the ground that a Roman should consult none but national oracles, goes to show that by the third century B.C. its importance was considerable. In 168 B.C. Livy tells us that King Prusias of Bithynia made offerings to the Goddess Fortune of Praeneste.† Cicero, in the chapter in which occurs the description of the shrine, speaks of the visit paid by the famous Greek philosopher Carneades, who is reported to have said that Fortune at Praeneste was more fortunate than anywhere else.‡

The shrine of the Goddess seems to have suffered severely when Praeneste was captured



FIG. 2.—CASTLE S. PILETI.

by Sulla. But Sulla paid special reverence to the Goddess Fortune, whom he held as his patroness, and under him the shrine was rebuilt with great magnificence on a much larger scale. This restoration must have made it the largest sanctuary of the kind in Italy and a conspicuous landmark.

Cicero§ says that in his day the consultation of the lots had partially fallen into dis-use, and that only the vulgar and ignorant now believed in them. Tiberius tried to abolish their use, and ordered the box in which they were kept to be transported to Rome. The story goes that when the box was opened in Rome the lots had disappeared, but that they appeared once more when the box was restored to its place. Terrified by this portent, Tiberius desisted from his intention and left the oracle alone. At any rate the cult of Fortune and her oracle continued under the Empire. Domitian¶ put himself under the protection of the Goddess every year, and the oracle foretold his assassination in 96 A.D. Alexander Severus** also con-



FIG. 3.—A STREET IN PALAFIRINA.

* Valerius Maximus, i. 3, 2.

† Livy, xlv. 44.

‡ "Nusquam se fortunatiorem quam Praeneste vidisse Fortune."

§ Loc. cit.

¶ Suetonius, Tiberius, 63.

¶ Suetonius, Domitian, 15.

** Tacitus, In Alex. Sev. 4.

sulted the lots, which are said to have promised him the Empire if he could escape the plots of Elagabalus, replying in the words of Virgil, "si qua fata aspera rumpas, tu Marcellus eris."

Christianity found a powerful opponent in the Goddess Fortuna Primigenia, though the existence of Christians at Praeneste in the third and fourth centuries A.D. is proved by the martyrdom in 274 A.D. of St. Agapitos, and by the record of a bishop of Praeneste as early as 313 A.D.* Constantine, on his acceptance of Christianity, ordered the closing of the oracle and shrine, in common with all other pagan buildings; but on the accession of the Emperor Julian it was again reopened, and fragments of an inscription in his honour have been found. The oracle was finally closed by the Emperor Theodosius, who in 392 A.D. put an end to pagan cults. After this time Christianity conquered, and Praeneste became one of the suffragan bishoprics of the Roman See. The relics of the martyred saint, Agapitus, were removed from the basilica outside the town, where they had been buried, and placed in one of the most important buildings of pagan Praeneste, which became the Cathedral dedicated in his honour. The great temple built by Sulla in the upper part of the town became the seat of mediæval barons, and the name of the town itself gradually changed from Praeneste—Civitas Praenestina to Penestrina, Pelestrina, and finally Palestrina.

The earliest notice that we have concerning mediæval Palestrina is the deed of gift by which Pope John XIII. ceded the territory of Palestrina to his sister Stefania in 970 A.D. Her family remained in possession till 1043 A.D., when by the marriage of the last of the line, Emilia, to Stefano de Columna, Palestrina passed into the hands of the Colonna family. On the death of Emilia, the Pope, Gregory VII., laid claim to the estate on the ground that as she was the last of the line, the property should now revert to the Holy See. This claim was resisted by her son Petrus de Columna, and in 1117 A.D. Pope Paschal II. took it from him by force. After Paschal's death, however, Petrus recovered Palestrina and the Colonnas continued in undisturbed possession for nearly two hundred years.

In 1297 A.D. the Colonnas revolted from Pope Boniface VIII., and the next year the city was taken and razed to the ground. But under Clement V. the Colonnas were allowed to regain possession and rebuild their city.

In 1437 A.D. the Colonnas again rebelled, this time against Pope Eugenius IV., who followed the example of his predecessor Boniface, and ordered the unhappy city again to be levelled with the ground. This was carried out by Papal troops under Cardinal Vitelleschi.

Soon after this the Colonnas once more reconciled themselves to the Church, and Pope Nicholas V. (1447–1455 A.D.) gave permission to rebuild the city. This was done by Stefano Colonna, who also restored the fortress on the site of the ancient acropolis (Fig. 2). His son Francesco restored the palace.

From this time the city took on its modern aspect. The Colonnas remained its feudal lords, though with limited rights, until 1630 A.D., when it passed by purchase to the Barberini family, who still keep the title of Princes of Palestrina. The last event of historical importance which may be said to concern the town is the defeat in the plain below of the Bourbon troops from Naples by Garibaldi and his soldiers in 1840.†

The modern town is a dirty, picturesque place with winding streets that break at intervals into flights of steps (Fig. 3). Built into the walls of the many mediæval houses that remain can be seen pieces of cornices, friezes and architraves, while broken column drums and other fragments are to be found in most of the gardens.

II.

The literary notices of the Temple of Fortune at Praeneste and its oracle are very scanty. The passage in Cicero, *De Divinatione*, ii. 41,‡ referred to above, is the most important. This passage,

* For further information about Christian Praeneste see Marucchi, *Guida*, pp. 145 ff.

† G. M. Trevelyan, *Garibaldi's Defence of the Roman Republic*, pp. 138 ff.

‡ Cicero, *De Divinatione*, ii. 41, 85–86: "Numerum Suf-

rustium Praenestimorum monumenta declarant honestum hominem et nobilem, somnis crebris ad extremum etiam minacibus cum iuberetur certo in loco silem cadere, perterritum visis iridentibus suis civibus id agere coepisse: itaque perfracto saxo sortis erupisse in robore insculptas

besides giving the origin of the lots, tells us more than any other authority about the original shrine. From it we learn that the spot where the lots leapt out of the rock was in Cicero's time in a sacred enclosure and that near it was the shrine of Jupiter Puer,* who was represented as a suckling child with Juno in the lap of Fortune and was worshipped by matrons. Cicero continues that the Temple of Fortune stood on the spot where honey had flowed out of an olive tree, from the wood of which was made the chest which contained the sacred lots.

With regard to the Temple we learn from Pliny that it contained a heavily gilded statue of Fortune.† In another place‡ Pliny, in talking about various kinds of paving, mentions that called "lithostroton," and says that the pavement of this kind given by Sulla to the Temple of Fortune at Praeneste remained in his day. This gift of Sulla has by many been thought to be the mosaics with marine and Egyptian subjects, the former of which is still *in situ*, while the latter, the famous Nile mosaic, was removed and restored and is now in the Palazzo Barberini at the top of the town.

Liwy tells us that in commemoration of the exploit of M. Anicius at Casilinum, his statue was set up in the Forum at Praeneste with an inscription, a copy of which was attached to three statues in the Temple of Fortune.§

From an inscription of the age of the Antonines recording a gift of statues we learn of the existence of a building called the "Junonarium" and also that the Temple of Fortune had a "pronaos."

Beyond references to sacred buildings and dedications, there is a passage in Varro¶ from which we know that Praeneste possessed a very ancient "solarium," or solar clock, with an inscription. Traces of this clock, showing it to have been of peculiar design, were found in 1882 by Professor Marucchi** on the southern face of the building which is now the main part of the Cathedral of S. Agapito.

An old "aerarium" is under the building now the seminary. Its name is fixed by an inscription of pre-Sullan date.†† The "Fasti Praenestini," the celebrated calendar of Verrius Flaccus, were set up either in the upper or lower part of the Forum (there is a variety of reading in the passage in Suetonius).‡‡ Marble slabs of this calendar were used as building material in the old basilica of S. Agapito

puscatum litterarum notis. Is est hodie locus saepius religiose propter Jovis pueri qui lactens cum Junone Fortunae in gremio sedens mammam appetens castissime colitur a matribus. Eodemque tempore in eo loco ubi Fortunae nunc est aedes mel ex olea fluxisse dicunt, haruspicesque dixisse summa nobilitate illas sortis futuras, eorumque iussu ex illa olea uream esse factam eoque conditis sortis quae hodie Fortunae monitu tolluntur. Quid igitur in his potest esse certi quae Fortunae monitu pueri manu miscentur atque ducuntur? . . . Quis robur illud cecidit, dolavit, inscripsit?"

From the records of Praeneste we learn that Numerius Suffustius, a man of rank and consideration, was ordered by frequent dreams, which at the last became threatening, to break open the flint rock at a certain spot. Terrified by his visions, he began to do this, though his fellow-citizens laughed at him, and when the rock was shattered lots leapt out carved in oak with the marks of ancient letters. This is the place which is now religiously enclosed near the shrine of Jupiter Puer, who as a suckling child sits with Juno in the lap of Fortune seeking her breast, and is worshipped by mothers with the purest rites. They say that at the same time honey flowed from an olive tree at the spot where now is the Temple of Fortune, and that the haruspices declared that the lots would be held in the greatest honour, and that at their command a chest was made of the olive tree in which the lots were placed and from which they are now taken when Fortune bids. What certainty can there be in these lots which are shuffled and drawn by the hand of a child? . . . Who cut down that oak and worked it and carved letters upon it?"

* The best explanation of this cult seems to lie in the fact that Fortune as Primigenia was also called "Jovis Puer" (*ie.*, filia). This is shown by inscriptions. This was probably later misunderstood and referred to Jupiter himself.

and so gave rise to the cult of Jupiter as a babe. Cf. Wissowa, *Religion und Kultus der Römer*, pp. 208 ff.

† Pliny, *H.N.* xxiii. 61. He is discussing the method of gilding by means of thin gold plates "bractea" and continues "crassissimae ex his Praenestinae vocantur etiam nunc retinente nomen Fortunae inaurato ibi simulacro."

‡ Pliny, *H.N.* xxxvi. 64: "Lithostrota coeptravere iam sub Sulla parvulis certe crustis. Exstat hodie quod in Fortunae delubro fecit." Cf. Marucchi, *Atti Pont. Acc.* 1910, pp. 146 ff.

§ Livy, xxiii. 19, 18: "Statua eius indicio fuit Praeneste in foro statuta, loricate, amicta toga, velato capite, cum titulo laminae aeneae inscripto, M. Anicium pro militibus qui Casilum in praesidio erant votum solvisse, idem titulus tribus signis in aede Fortunae positus fuit subiectus."

¶ *C.I.L.* xiv. 2867: "L. Sarnolenus Naevius Fastus consularis ut Triviam in Junonarium, ut in prona aedis statuum Antonini Augusti, Apollinis, Isityches, Spei, ita et hunc Minervam Fortunae Primigeniae donum dedit cum ara."

• Varro, *De Lingua Latina*, vi. 4: "Meridies ab eo quod medius dies. D antiqui in hoc loco non R dixerunt ut Praeneste incisum in solarium vidi."

** Marucchi, *Annali dell' Ist.* 1884, pp. 286 ff. Cf. also Guida, p. 65, Fig. 9, and *Atti della Pont. Acc.* 1918, pp. 226, ff., for his latest ideas on the subject. He uses this clock together with a passage from Ovid (*Fasti*, vi. 59) to endeavour to identify the building with the Junonarium mentioned in the inscription given above (*C.I.L.* xiv. 2867).

†† *C.I.L.* xiv. 2975: "M. Anicius L. f. Baaso, M. Mercenius C. f. aedilis aerarium faciendum dederunt."

‡‡ Suetonius, *De Grammaticis*, 17: "Statuam habet (sc. Verrius Flaccus) Praeneste in inferiore (v.l. superiore) fori parte contra hemicyclium in quo fastos a se ordinatos et marmoreo pariete incisos publicarat."

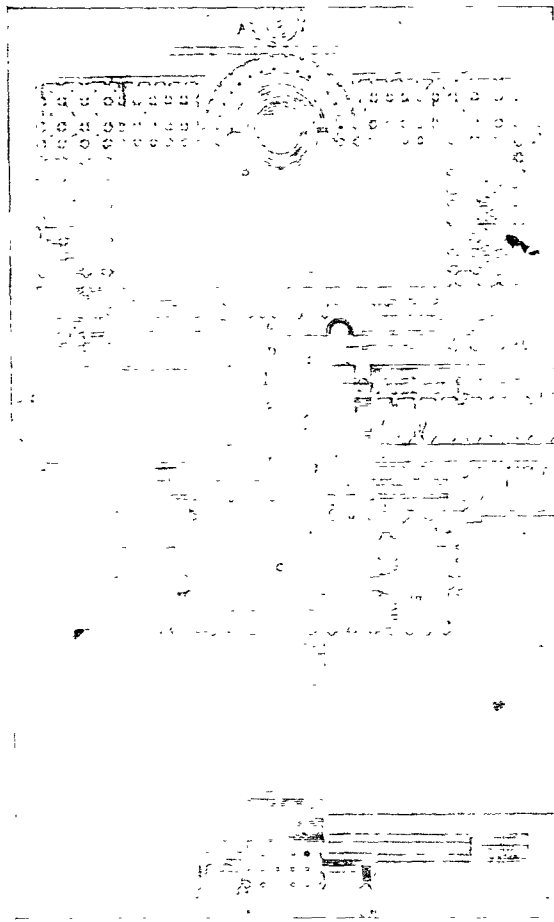


FIG. 4.—VIENNA COPY OF PIRRO LIGORIO'S PLAN.

outside the town, but one fragment was discovered near S. Maria dell' Aquila on the site of the Forum of the Roman Colony.

There is one important reference in mediæval times to the temple in the upper part of the town. It is given in Petri's *Memorie Prenestine*, and is numbered Monumentum XXXII.* It is from a petition of the Colonna family for the restitution of their rights after the destruction of the city in 1297, and gives the only description of the upper Temple extant, showing that it had flights of marble steps leading up to a hemicycle above which was a round temple crowning the whole design.

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Portions of the above and the Sangallo drawing are reproduced by Camma and Delbruck.

* Petri, *Memorie Prenestine*, XXXII, p. 430: "... Item dicunt in Civitate Prenestina que totaliter supposita fuit exterminio et ruinæ cum Palæis suis nobilissimis, et antiquissimis, et cum Templo magno et solenni, quod in honorem Beate Virginis de hoc temet erat, edificatus per Iulium Cæsarem Imperitorem, cuius Civitas Prenestina fuit antiquitust et cum scalis de nobilissimo marmore amplis, et largis, per quas etiam equitando ascend poterat in Palacium et Templum predicta, que quidem scelerent ultra centum numero Palacium autem Cæsaris edificatum ad modum unius C propter primam litteram nominis sui, et Templum Palacii inherens opere sumptuosissimo edificatum ad modum S. M. Rotunde de Urbe. Que omnia per ipsum Bonifacium et eius tyrannidem exposita fuerunt totali exterminio et ruinæ, et cum omnibus aliis Palæis et edificiis et Domibus ejusdem civitatis, et cum muris antiquissimis, opere Saraceno factis de lapidibus quadris et ingenis, que sola dampna tunc magna, et inextinguibilia sunt, quod multa et magna bona non sufficient ad refectionem ipsorum, nec aliqua ratione vel summa pecunia possent, ut fuerunt relictæ propter magnam antiquitatem, et nobilitatem operum predictorum.

Item in Castro Montis Prenestina, quod similiter totaliter dirui fecit, ubi erat Rocca nobilissima, et Palacia pulcherrima, et muri antiquissima opere Saraceno, et de lapidibus nobilibus sicut muri predictæ Civitatis . . .

" . . . Next they mention the town of Prenestina, which

was entirely laid waste with destruction and ruin, with its most noble and ancient palaces and its great and solemn temple, which was dedicated to the honour of the Blessed Virgin, all of which were built by the Emperor Julius Cæsar to whom the Town of Prenestina belonged of old, and with its broad and spacious flights of noble marble steps up which a man might even ride on horseback to the temple and palace aforesaid. And the palace of Cæsar, which was built in the shape of a single C because of the first letter of his name, and the temple above and adjoining the palace which was built with most noble and sumptuous workmanship in the shape of S. M. Rotunda (i.e., the Pantheon) in Rome. All of which, through this same Boniface and his tyranny, were laid waste in utter destruction and ruin, with all the other palaces also and buildings and dwelling houses of the same city, and with its ancient walls of Saracen workmanship made of great square stones. Which alone are such great and estimable losses that many and great riches would not suffice to restore them, nor could they by any means, nor even by the greatest sums of money, be rebuilt as they were, because of the great antiquity and excellence of the aforesaid works.

" Next they mention the Citadel of the Mount of Prenestina, which he likewise caused to be destroyed, where was a noble fort and beautiful palaces and most ancient walls of Saracen workmanship and of noble stones like the walls of the aforesaid city. . . ."

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IV.

Since the Renaissance Praeneste has been the subject of several restorations. These attempts show two main faults. First, temple buildings, colonnades and open spaces all connected with the sanctuary have been made to cover the whole slope of the hill; secondly, a perfect balance has been shown throughout. The reason for this is that early schemes for restoration were made without any exact measurements of the actual remains visible. Discoveries and excavations which have recently been made on the site, though not on any large scale, suffice to disprove these restorations, in all of which imagination plays a large part. Hadfield's is a particularly striking example of this freedom of treatment, no design showing less likeness to the possibilities of the actual remains than his; while in the latest, that of Cipolla, the central and most ancient of all the buildings is not shown.

A fair amount has been written on the subject of Palestrina and its history. The first scientific and careful survey of the site is that by Nibby. Of late years, since excavation has begun, the amount of literature dealing with Palestrina has largely increased. The most valuable general description (giving plan and elevation of the ruins) is that of P. Blondel, who lived for some years at Palestrina. The work of the later authorities in the list is also important.

In the preparation of my drawings of the actual state of Praeneste I have depended chiefly on the surveys made by Mr. Prestwich.* The plan (Fig. 14) has been based on the Stato Pontificio Survey of 1818, kindly supplied by the Ufficio Tecnico di Finanza di Roma, supplemented by the levels and survey of the 1st Reg. Genio stationed in Palestrina during the war. The whole has been brought up to date and corrected by measurements and levels which I took on the spot.

I have made no study of the lower part of the city (*i.e.* the Roman forum and its surroundings below the present town), and have limited my restoration to the part above the Via degli Arcioni. A certain amount is visible south of this road, but until further excavations have been made any attempt at a reconstruction of this part would be useless.

The date chosen for the restoration is the end of the first century A.D. (Figs. 15 and 18). The site of the ancient town was at this time partly covered by the sanctuary as rebuilt by Sulla, who founded a new Roman colony at the foot of the hill. Here was the forum with new public buildings, which later included libraries,† and amphitheatre,‡ and even a school for gladiators.§ Houses and public buildings must, however, have existed in the more ancient part of the town, and there is no warrant for supposing that this part contained the temple buildings only.

Before the time of Sulla there was obviously no attempt at symmetry in the planning of the town. The lower terrace walls and south boundary are not parallel. The axis of the central building under the present Cathedral was not parallel with that of the group of buildings forming the ancient shrine. In the reconstruction which followed Sulla, an axis was taken passing through the centre of the space between the two grottos, and terraces were made at right angles to this line. The design of the upper part of the town is completely balanced, and repeats and confirms the lines of the early sanctuary. Two small hemicycles were made on the upper terrace to correspond with the two grottos. On the lower terrace, in Imperial times, a large water-tank was built which practically corresponded with one already existing on the east. In this way the town began to assume a symmetrical appearance, but there was far from being a perfect balance between the two sides.

* Mr Ernest Prestwich, A.R.I.B.A., intended to make a restoration of Praeneste in 1911. As he was unable to carry out this idea he very kindly laid at my disposal much material which has been very useful to me throughout.

† *C.I.L.* xvi. 2196, Magoffin, p. 53.

‡ *C.I.L.* xiv. 3010, 3014, Magoffin, p. 52.

§ *C.I.L.* xiv. 3014.

It will now be convenient to study the town in greater detail.

WALLS.—The early town was joined to the citadel (on the site of the modern Castel S. Pietro)

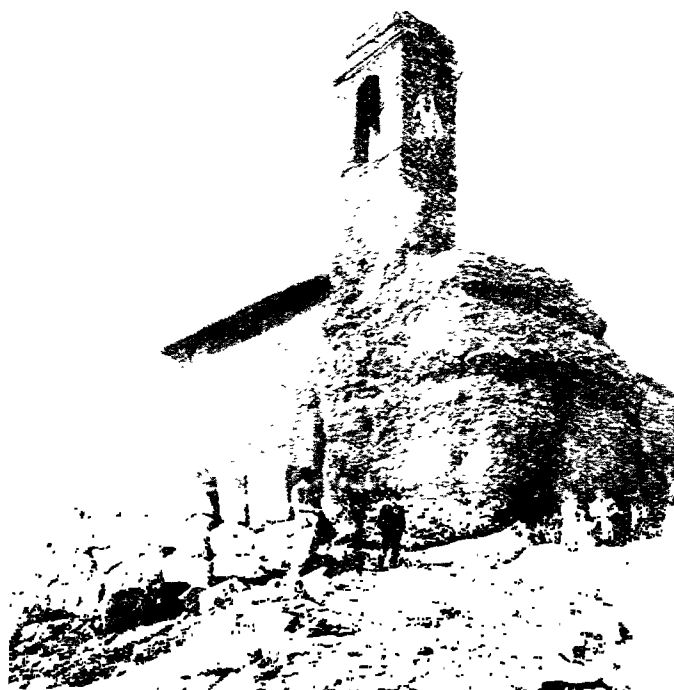


FIG. 5.—POLYGONAL WALL AT CASTEL S. PIETRO

by long walls of polygonal masonry* (Figs. 5 and 6). These walls were not destroyed by Sulla after the taking of the city with the exception of the wall on the south, although the town was no longer fortified. The wall is nearly complete on the east side. On the west no trace of ancient wall exists between the Porta San Francesco and the Porta San Martino, except for two small pieces in the modern wall, the line of which has therefore been adopted in the design. On the south the wall is of "opus quadratum" of the time of Sulla (Fig. 7), with an arcade to the east of the central gate.

MAIN ROADS AND GATES.—The main road from Rome was the Via Praenestina, which after Sulla's time ran into the new part of the town on the plain. Pieces of ancient paving show that a road led up from the lower town to a gate in the walls where is now the modern Porta San Martino. This

paving is visible outside the present gate along the modern road. South of this, below the present Cardinal's Garden, is a gap in the wall. This may also have been another small gate as shown in the restoration, although the sides are broken.

In the centre of the south wall and on the axis of Sulla's building is a large gap in the "opus quadratum" wall and remains of what appears to be the flank of an entrance. This was the main approach from the new forum to the temple and the old town.

On the east side the main entrance was where is now the Porta Santa Maria, at the end of the modern Via Anicia. Part of the Cyclopean wall on the north side of the modern entrance ends in a

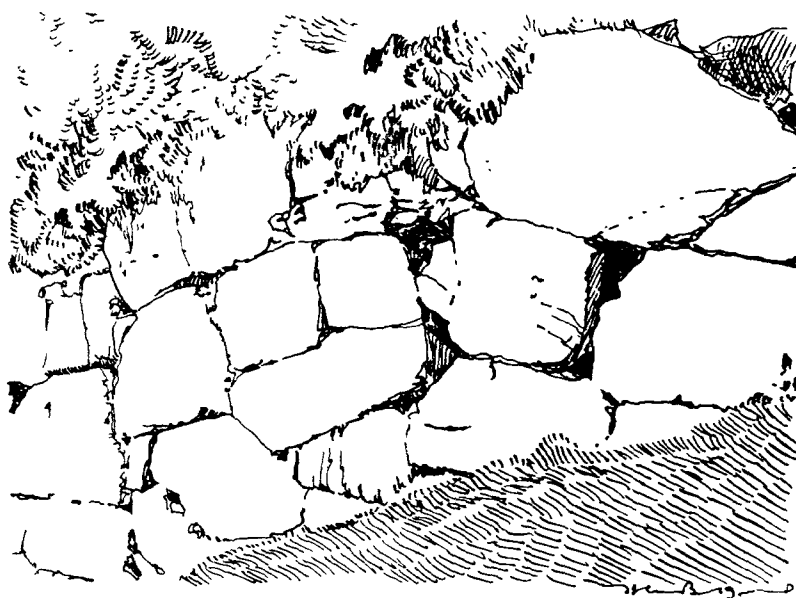


FIG. 6.—POLYGONAL WALL.

* Cf. the city walls of Norba.

vertical edge, which makes it likely that in ancient times there was a gateway here: remains of a gate tower also exist at this point. In the Via Anicia just inside the gate are some large blocks of

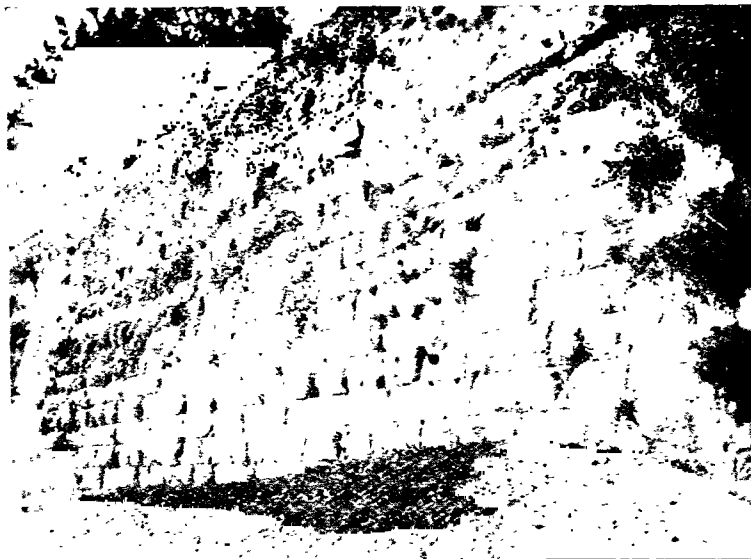


FIG. 7.—OPUS QUADRATUM OF S. WALL.

The road to the citadel, which still remains as the "strada antica," zigzagged up inside the walls.

ROADS WITHIN THE WALLS.—The greater part of the ancient remains consists of terrace walls (Figs. 8 and 9). These walls, which run practically east and west across the whole town, help to fix the lateral communications. The levels of the tops of the walls, column bases and entablatures *in situ* and some fragments of ancient road paving give the relative heights of each stage of the town. The roads shown in the restoration have been arrived at by careful measurements of these remains and by the lines of the modern roads where they are suitable.



FIG. 8.—TERRACE WALL.

In making a main approach from the forum of Sulla on the centre axis I have followed the restorations of Pirro Ligorio and Palladio and the opinion of Magoffin.† The base found in the Piazza Garibaldi (see Fig. 10) and the building under the Cathedral establish this axis.

* Huyot, *Mon. Ant.* Pl. 189. See also his report in the *Bibliothèque de l'École des Beaux Arts*.

† Magoffin, p. 32.

The main approach from the west, along what is now the modern Corso, is fixed by two fragments of retaining wall which exist below the level of the modern street in the houses Nos. 82 and 102. The lower road, parallel to this and running past the open reservoirs, has also a retaining wall, which can be seen under the house of the Ciccerchia family in the Via Pierantonio Petri. The retaining walls of the upper part of the town being much higher are plainly visible.

THE ANCIENT FORUM.—

Excavations have been made in the modern Piazza Regina Margherita (Fig. 11), which show that an open space existed here in ancient times. Four steps running right across in front of the modern seminary were found;* and the paving of this

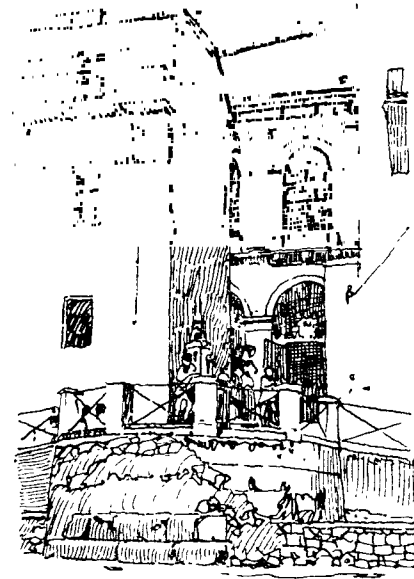


FIG. 10.—PIAZZA GARIBOLDI, SHOWING BASE



FIG. 9.—TERRACE WALL.

space and of an ancient road leading into it, and the steps of a podium are to be seen at the north-east corner of the Cathedral. It is natural to see in such an open space in the middle of an ancient town the forum. This identification is made all the more probable by the fact that round this space, on the north and west sides, were the most important buildings of early Praeneste. The aerarium is to be seen here under the modern seminary. This is proved by an inscription in it giving its name.† As we know that in ancient towns that the usual place for the aerarium was the forum,‡ it makes it all the more likely that this space was the forum. How far it extended south and east is not yet known, but the slope of the ground limits possibilities on the south side. On the east it has been restored so that the temple is in the centre of the north side (as was the case at Pompeii).

Every former restoration shows the forum extending to the west, so that the central building (under the Cathedral) stands in the middle. What evidence there is, however, is against this idea. Had there been such a forum there would have been no reason for the ancient road on the east side of the central building. The grotto, to which it obviously leads, could have been reached across the space to the west.

LOWER TEMPLE AND ADJOINING BUILDINGS.—In assuming that the two grottos and the area connecting them were the ancient sanctuary of Fortune referred to by Cicero in the passage given above, I follow all important authorities§ except the late Professor Vaglieri, and Professor Hulsen,¶ who believe this group of buildings to be secular.

* Vaglieri, *Bull. Comm.* 1909, pp. 231 and 232, Figs. 8 and 9.

† *C.I.L.* xiv. 2975. The inscription belongs to a date earlier than Sulla, probably to the second century, i.e. Cf. Marucchi, *Guida*, p. 45 and Fig. 5.

‡ Vitruvius, v. 21: "Aerarium carcer curia fore sunt coniungenda."

§ On this point Marucchi and Delbrück are the most important.

¶ Vaglieri, *Bull. Comm.* 1909, pp. 230 ff. Vaglieri believes that if the temple is to be found in this part of the town it is the building incorporated in the Cathedral.

• Vaglieri, *Bull. Comm.* 1909, p. 267, n. 113, mentions that Professor Hulsen thought it was probably a library.

Enough exists of the building on the east side to give a satisfactory restoration.* It is of "opus incertum" with applied columns in good preservation (Fig. 12, 19). Like the Temple of Concord at Rome, the entrance was on one of the long sides. The famous Nile mosaic, now in the Palazzo Barberini at the top of the town, covered the floor of the grotto at its north end.† This is the building generally accepted as the Temple of Fortune.

The exact arrangement and appearance of

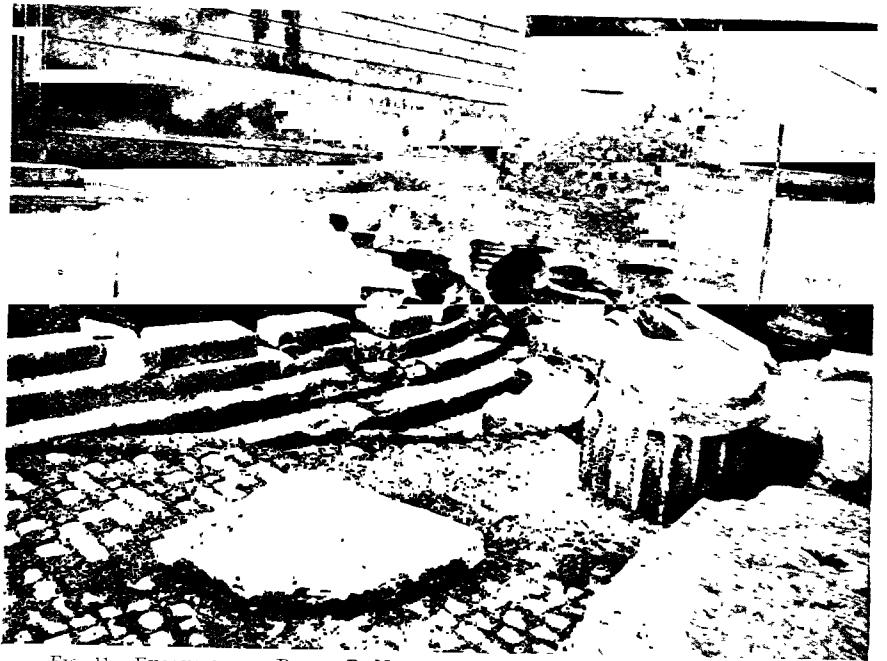


FIG. 11—EXCAVATION IN PIAZZA R. MARGHERITA, SHOWING ANCIENT ROAD AND FORUM.



FIG. 12—TEMPLE OF FORTUNE—INTERIOR

* As mentioned in the bibliography, Tetraz has made a careful study of this building and its details.

† Marucchi, *Atti della Pont. Acc.* 1910, pp. 146 ff.; a discussion of the Nile mosaic and of mosaic pavement found in the upper temple which Marucchi believes to be the

the building on the west, which is believed to be the Grotto of the Lots, is more difficult. I have shown it partly covered, and supposed that in the rebuilding of Sulla, when the whole of this group was elaborated, it was enclosed on the south side and a façade built to correspond to that of the temple.

The shrine of Jupiter Puer is said by Cicero to have been near the spot where the lots sprang out of the rock. I have placed it in this enclosure.

The space between the grottoes offers a more difficult problem. A variety of opinion exists as to how this area was treated: the question has been discussed in detail by Professors Marucchi‡ and Delbrück.§ who believe it to have been open to the sky, and Professor Vaglieri,|| who believed it to have been roofed over. Delbrück, in a detailed article, shows by careful drawings what he considers to have been its appearance. Professor Marucchi gives many reasons why

|| "lithostrotion" of Sulla.

‡ Marucchi, *Bull. Comm.* 1907, pp. 302 ff.

§ Delbrück, *ib.* pp. 67 ff.; *ib.* p. 11.

|| Vaglieri, *Bull. Comm.* 1909, pp. 233 ff.

he considers this area to have been open. I agree, however, with the conclusion of the late Professor Vaglieri that it was roofed over.*

The difficulties of the problem will be more clearly understood by reference to the plan of this area (see Fig. 14). To have any *raison d'être* at all the window openings and the arches above on the north side must have corresponded with actual windows and arches on the south side. Otherwise such a treatment for this wall would be pointless, as it forms part of the retaining wall to the cliff. The existence of columns corresponding to the applied columns of this wall is proved at B (Fig. 13). At C there is part of a wall which would have formed a foundation for a row of columns on this line. In the crypt below S. Agapito the wall marked D is visible. This wall obviously corresponded to the double wall referred to above if the area was roofed. The columns at E (in the Museum) are only half the intercolumniation of those of the north wall. This, however, would not matter, as the two rows would not be seen together. The fragment of column in the crypt does not appear to me to be *in situ*. The column bases at F belonged to a portico which ran round the temple and are on a considerably lower level, *i.e.*, that of the forum.

The foregoing seems to show that the area was covered, and this theory is borne out by the fact that there are no traces of gutters or channels for the disposal of rain-water in the area. The channel existing between the two parts of the wall on the north is no evidence either way. It would be necessary in any case to carry off the water from the cliff.

The most ancient building of Praenestina is now part of the modern Cathedral of S. Agapito. It is of "opus quadratum." The east and west walls have been pierced with arches and made to form the piers of the nave.† The north wall has been destroyed, except in the crypt, where a fragment is to be seen, and the south wall is visible only from the balcony over the modern entrance. Sufficient exists, however, to give the exact size of the rectangle. The excavation, still open in the Piazza Regina Margherita, shows that this building stood on a podium with steps leading down to the street and forum on the east side. In 1884 Professor Marucchi discovered traces of the Solarium mentioned by Varro on the south wall.‡ The colonnade surrounding these walls, shown on practically all restorations, is therefore proved impossible. It is probable that this building was restored and embellished in the time of Sulla, as it was the centre of his whole scheme. There is a doubt about its identification, but the general belief is that it was the Curia, or Senate House, of pre-Sullan Praeneste.



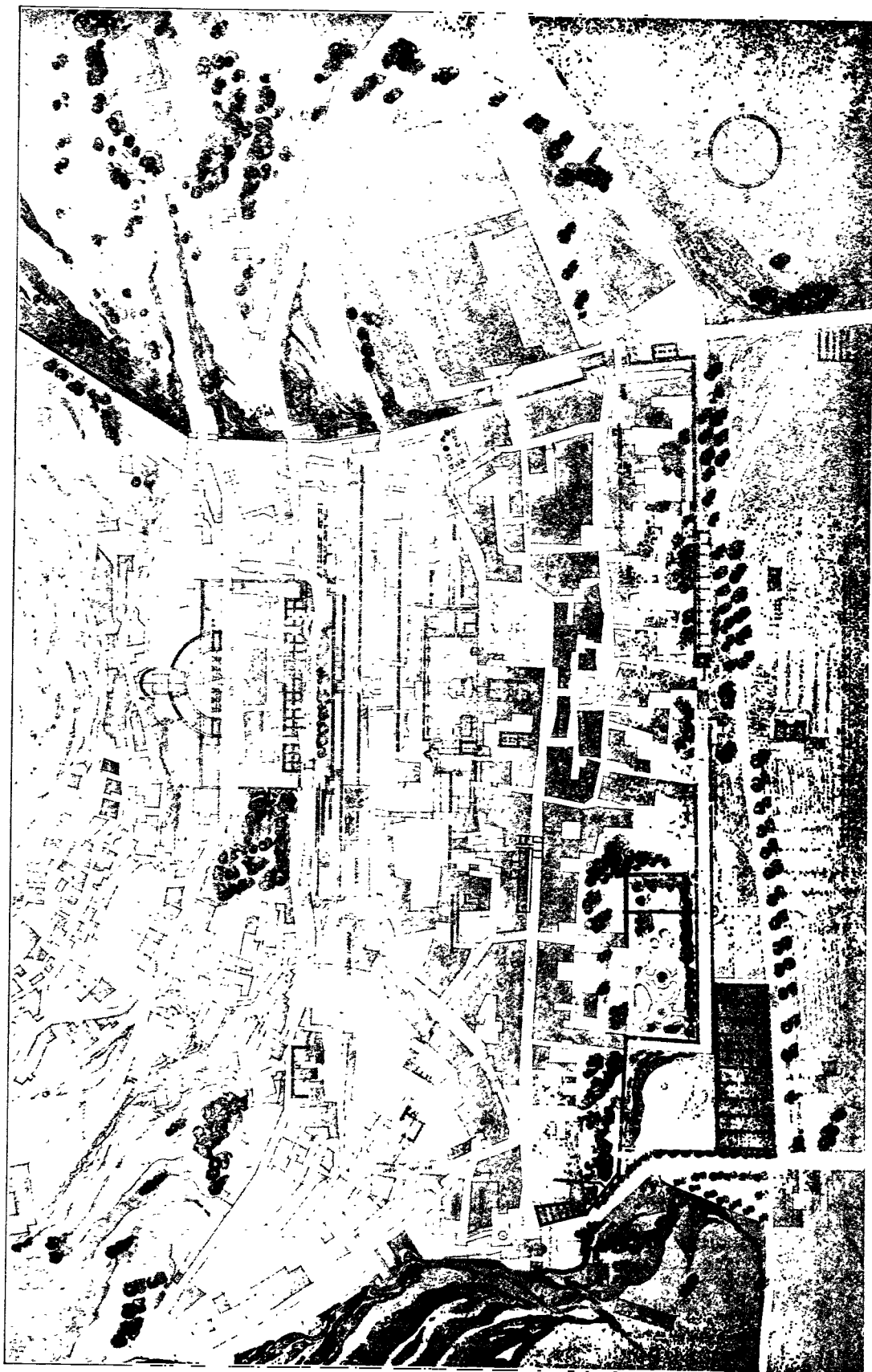
FIG. 13.—AREA BETWEEN GROTTOES SHOWING APPLIED COLUMNS AND CORRESPONDING BASES

* This is also Dr. Ashby's opinion.

† Cf. Temple of Concord at Girgenti.

‡ Marucchi, *Atti della Pont. Acc.* 1918, pp. 226 ff. Contains the most detailed discussion of the problem of the

central building, with photographs of the traces of the "solarium." A very clear drawing of the "solarium" is also given in his *Guida*, Fig. 9.



PLAN OF PRAENESTE ACTIVE STATE



FIG. 15. GENERAL VIEW OF PIANESETE RESTORED.

UPPER TEMPLE AND BUILDINGS.—

The restoration of the upper part of the town is an easier matter. The whole formed an architectural setting for the more ancient shrine below. A large open space surrounded by a colonnade with a hemicycle, the steps of which still exist (fig. 16.21) in the middle of the north side, commanding a magnificent view of the plain to the south, is crowned by a round temple. This space probably served, as Professor Marucchi suggests,* as an open place for functions and sacrifices, which were not possible in the ancient forum owing to its restricted size and to the presence of other monuments. The circular temple at the top is mentioned in the Colonna petition, in which it is described as like S. Maria Rotunda, *i.e.*, the Pantheon. This is most unlikely, considering the date, although Palladio restores it in this way. Probably all that is meant is that it was a circular building. We have examples of contemporary round temples in the so-called Temple of Vesta, in Rome, in its earlier form, and of the Sibyl at Tibur (Tivoli). These are both peripteral,

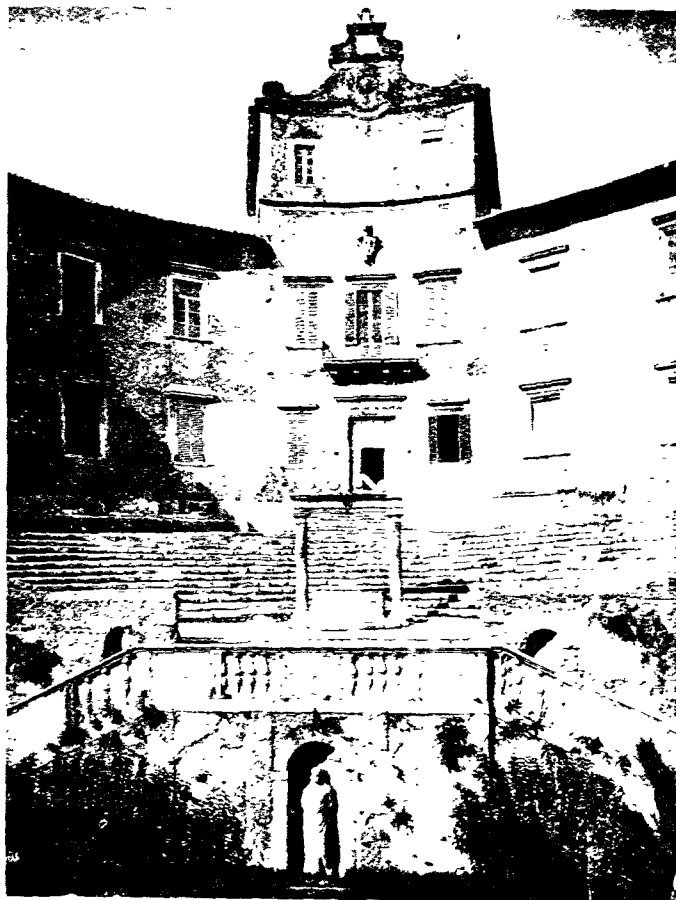


FIG. 16.—PALAZZO BARBERINI, SHOWING STEPS OF HEMICYCLE



FIG. 17.—RESERVOIR BELOW THE TOWN.

and I have consequently followed them in my restoration. The semi-circular flight of steps is shown in the Pirro Ligorio drawings, and also in Huyot's restoration. The large block of tufa found in front of the modern staircase was probably the substructure of a colossal statue.†

RESERVOIRS.—The problem of water must always have been important to Praeneste, which was dependent on

*Marucchi, *Atholia Pont.*, Acc. 1910, p. 157.

†Not. Scavi.

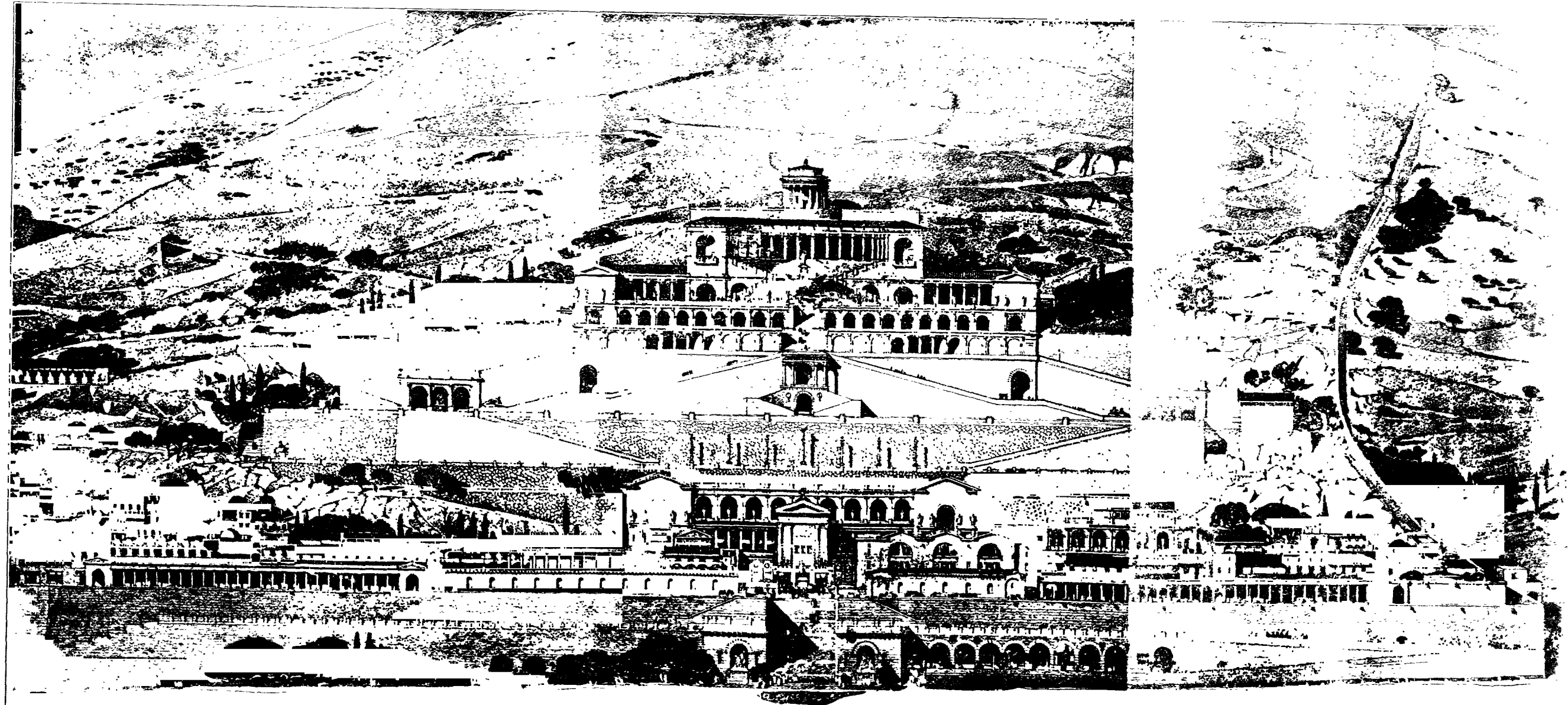


FIG. 18. ELEVATION OF TEMPLE OF FORTUNE AT PRAENESTE AND ITS SURROUNDINGS RESTORED.



FIG. 19 PRAENESTE THE TEMPLE OF FORTUNE, NOW A SEMINARY.

reservoirs for a satisfactory supply,* at any rate until the construction of aqueducts, and even afterwards as a matter of convenience. There are remains of five reservoirs. The most ancient, of "opus quadratum," is along the modern Corso, and is mentioned only by Magoffin.† There were two tanks, open to the sky, on the lower platform. A considerable part of one exists in the Barberini garden. It is of brick construction, faced with cement, and probably of Flavian date.‡ In the east part of the town traces of two walls of "opus incertum" have been found, which were probably part of the north and south walls of a reservoir on that side. There is also an aqueduct like the one existing under the Barberini garden. The construction is much earlier than that of the other reservoir, and the tanks could not have corresponded in size nor in relation to the centre axis. Pieces of granite columns in the gardens on this side suggest colonnades such as I have shown in the restoration.

Below the town, on the west, is another large reservoir (Fig. 17) of brick which, according to Nibby, is of the time of Tiberius,§ but the brickwork seems to be considerably later.|| This probably supplied the lower town. Finally, at the Porta San Martino is a small reservoir of "opus incertum," which is unfaced and must have been below the level of the ancient road.

OTHER BUILDINGS.—In suggesting other suitable buildings I have referred to similar towns such as Anxur (Terracina), Tibur, Tusculum and Pompeii. The basilica shown on the east of the forum

* Strabo, v. 3. 11. † Magoffin, p. 41.

‡ This is also the opinion of Mr. C. Densmore Curtis, who kindly examined the brickwork with us.

§ *Analisi*, p. 503; *C.I.L.* xiv. 2911 was found near here.

Mr. Curtis agreed with us in this.

is like that which exists at Anxur, and the temple, with its enclosure on the west of the central axis, is similar to that of Apollo at Pompeii. In the remaining space I have suggested quarters for the priests and attendants of the sanctuary, and have also shown shops and houses, small baths and villas.



FIG. 20.—PRAENESTE. NORTH WALL OF SPACE BETWEEN GROTTOS, SHOWING WINDOW OPENINGS AND ARCHES.

These are all natural to a famous shrine and health resort such as we know Praeneste to have been ; but it must not be forgotten that after Sulla and in Imperial times the centre of civic life lay not here but in the new town on the plain, where in consequence were many buildings which might otherwise have been looked for here.

The type of house has been assumed to be rather that of Ostia* than of Pompeii. The Pompeian type would not have been so adaptable because of the restrictions of space imposed by the terraces. The Ostian house, unlike the Pompeian "domus" with its atrium and horizontal development, depends



FIG. 21.—PRAENESTE: DETAIL OF ARCADE OF UPPER TEMPLE.

for light on a façade with windows and develops vertically after the fashion of a modern house. Thus it is much more fitted for places where for any reason the land available for building is limited, as must have been the case on the hill at Praeneste.

Very little is known of the planning of villas in the neighbourhood of Rome: but for the general appearance of their exterior I have been guided by wall paintings,† in Rome and at Pompeii.

[Figs. 2, 5, 9, and 21 are reproduced from photographs by Dr. T. Ashby: Fig. 3 from a photograph by Brogi: Figs. 8, 11, 12, 17 from photographs by Mescioni: Figs. 13, 16, 19, 20 from photographs by Alinari. The Institute is indebted to the authorities of the British School at Rome for the loan of all the blocks which illustrate this Paper, with the exception of Figs. 14, 15, 18.]

* Calza, *Mon. di Lancia*, xxiii, 1915, *La Preminenza dell' "Insula" nella Edilizia Romana*.

† Rostovtzeff, "Die Hellenistisch-Romanische Architekturlandschaft" (*Röm. Mitt* 1911, 1-2). Photographs *passim*.

DISCUSSION ON THE FOREGOING PAPER.

The President, Mr. JOHN W. SIMPSON, in the Chair.

The PRESIDENT, before calling upon Mr. Bradshaw for his Paper, addressed the Meeting as follows:—

It is, I think, fitting that I should say a few words in introducing Mr. Bradshaw. The Royal Institute has good right to be proud of his appearance here to-night, not only because he is himself a member whose great ability brings additional distinction to the ranks of our Associates; a man, too, who made good in the War, and wears the Italian decoration of the *Croce di Guerra*; not only because he is the brilliant winner of the most important prize open to architect-students, but because it was the Royal Institute which first conceived the scheme under which that prize was founded, of which we have now the satisfaction and pleasure of seeing the result.

It was so long ago as 1907 that, on the occasion of Mr. Colclutt's Presidential Address to Students, I urged the need of some institution, preferably in central Italy, for the assistance and direction of our British travelling students. In the following year I had the opportunity, during a journey to Vienna with the incoming President, Sir Ernest George, of urging the importance of this matter, and he was good enough to mention it in the course of his Inaugural Speech. I followed this up by a letter to the *JOURNAL* in November of the same year. It led to the formation of a special "School at Rome" Committee under the chairmanship of Sir Aston Webb, of which I became secretary.

There already existed, as you are aware, a British School of Archaeology at Rome; and, hearing of our activity, their Council expressed a wish to be associated with us. In consequence I was elected to their School Committee as a representative of the Royal Institute to act as a sort of *liaison* officer with a view to bringing the two bodies into line as regards their future action. I had the great pleasure of acting in this capacity for some few years.

In 1909 I visited Rome twice with reference to this matter, inspected the kindred institutions, both British and foreign, interviewing Sir Rennell Rodd, our Ambassador, and the directors of the historic French School, and of the recently-formed American School, in the Via Nomentana. They all promised their hearty co-operation and support to our project. The results of these visits were embodied in two pretty lengthy Reports to the R.I.B.A. Committee, which, though they were then, of course, confidential, contain much general information on the subject which might now perhaps be usefully published for permanent reference. They contained, besides, the outline scheme for combining the work abroad of all the British schools of archaeology, painting, architecture, and sculpture, pretty much as now established.

But, though we were all agreed on the desirability of the project, which was strongly supported by Sir Reginald Blomfield, the usual obstacle of finance blocked the way to its realisation. One fortunate day, however, the energetic Secretary of the Royal Commission for the Exhibition of 1851, Mr. Evelyn Shaw, called on our Secretary, Mr. MacAlister, with reference to the desire of the Chairman of the Commission to devote some portion of the funds at their disposal to helping some important project for the advancement of Artistic Education which we might have at heart. Mr. MacAlister was quick to seize the opportunity, and placed our scheme before Mr. Evelyn Shaw. The project was accordingly laid before the Chairman of the Commission, that enthusiastic patron of the fine arts, Lord Esher, who at once took the initiative, with the result that the School at Rome became an accomplished fact. Our best thanks are due to Lord Esher, as well as to Mr. MacAlister and to Mr. Evelyn Shaw for their insight and energy.

I have thought it right to record this piece of history, because it is the fashion in some quarters to disparage the Royal Institute as a rather slow-going, effete old body, lacking in initiative, and to ask what it does. The R.I.B.A. does not, perhaps, advertise its doings quite as much as it might, and should; but it is well to remember that its Council and Committees are ceaselessly working for the benefit of the profession, and that their achievements are too often accepted as matters of course, without thought of the quiet, long, inconspicuous effort which has preceded their successful fulfilment.

Professor J. S. REID, Professor of Ancient History, Cambridge, said it was with very sincere pleasure that he proposed a hearty vote of thanks to Mr. Bradshaw for his profoundly interesting Paper. In listening to it he seemed to have been realising part of the dream of those who were concerned with the earliest foundation of the British School at Rome, of whom he was one. When that School was founded, they had to be content with small beginnings; but the founders always looked forward to some such expansion of the School as had now taken place. They always hoped that the School would receive students representing the Arts, and he had been very glad to listen that evening to one of the first-fruits of the research of one of the new students whom they had been so glad to welcome at the School. The expansion to which they had looked forward was now beginning to be obvious, and was still proceeding. Recently a new Art Faculty had been added, the Faculty of Engraving, to which they wished all success. A fresh step, too, had been taken in an alliance formed with the Modern Language

Association, which would provide a succession of students at the School whose prominent interest was in modern languages and literatures. These new developments were much to be welcomed, because the wider the area of interest which the students of the School possessed, the better it was for every class of students, no matter to what Faculty they belonged. With regard to the modern language students, their accession would be welcomed, as it was hoped they might do something to restore the study of Italian in England to the position which it held down to almost the end of the eighteenth century, when, in the time of Sir Walter Scott and Coleridge, it was supplanted by German. He congratulated Mr. Bradshaw on the results of his researches: they formed a good augury, both for his own future, which they might look forward to as one of distinction, and also for the future work of the kind at the School. Co-operation among students was very important, and co-operation especially between architects and archaeologists was of great importance: in fact, many of the greatest archaeologists since the Renaissance time, not only in our own country but in every country, had been trained architects, and it was almost a maxim that it was essential in all important excavations that an architect should assist. He looked forward confidently to further results of the same kind. He would like to say a word about the great opportunities which young students now had of pursuing their studies in a place like Rome. We were very much indebted to the Commissioners of the 1851 Exhibition for founding these Studentships and enabling us to obtain a worthy abode for the School in Rome: but there was still a great deal of development possible to the School if it could only obtain larger resources. It was at a disadvantage compared with some of the other schools which had been supported liberally by their Governments. Ours was also at a disadvantage compared with the American School, to which great assistance had been given by wealthy American citizens. The great need of the School at the present moment was what he might, without offence, describe as a malleable millionaire, and if anyone knew of such a person, he hoped he would bring him along!

Professor ERNEST GARDNER, Litt.D., Yates Professor of Archaeology, London University, in seconding the vote of thanks, referred particularly to Mr. Bradshaw's researches and to his admirable drawings. There were several bodies to be congratulated on the result of his studies. In the first place, there was the Institute, which had done so much to help in the foundation of the School and turning its studies in this direction; secondly, there was the School at Rome; and, thirdly, there was Mr. Bradshaw himself. It was an extremely happy example of the co-operation of the architect with the archaeologist; as Professor Reid had said, the co-operation of these two was essential in almost all work of exploration and excavation. Without the architect the archaeologist was sure to go wrong; on the other hand, without the—

should he say?—restraint of the archaeologist the architect was, perhaps, a little too liable to give free rein to his imagination, instead of studying the actual facts which lie before him. This had been done by Mr. Bradshaw himself, and he would be the first to acknowledge that he had owed much to the help, the co-operation, even the restraint in some cases, of archaeological experts, who had always been willing to help him with his work—above all, Dr. Ashby—in Rome.

Mr. JOHN SLATER, B.A. Lond. [F.], said that as one of the fortunate people who had visited Praeneste—the present Palestrina—he would like to say a word. Praeneste was a most picturesque place. To see the houses climbing up the slopes, and to follow the lines of those Cyclopean walls to the top, where the view obtained could never be forgotten, was a most interesting experience. Mr. Bradshaw had quoted Horace as to the fame it enjoyed as a health resort, and anyone who had been there would understand how great was the contrast between the fresh air on the slopes and the sweltering heat in the plains, and how that contrast must have appealed to the Romans. Those who had seen how the remains of these temples were overlaid with rubbish and by modern buildings could only be struck with wonder and admiration at the patience and skill with which Mr. Bradshaw had traced the plan of the temples, and restored many of the features of what must have been, from its size and position and lay-out, one of the most striking temples in the neighbourhood of Rome. The British School at Rome was to be congratulated equally with Mr. Bradshaw on the result he had obtained. He supported heartily the vote of thanks to him for his interesting paper, and for his beautiful illustrations.

Sir CHARLES WALSTON, Litt.D., who was called upon by the President, said he was glad of the opportunity of supporting the vote of thanks. Mr. Bradshaw had produced a very sound piece of work, apart from his architectural skill and imagination. He referred especially to the thorough manner of the reconstruction, and the way Mr. Bradshaw had reconstructed the fragments into an organic whole. It was evidence of the true side of the architect's work, for, however much the technical side might be emphasised nowadays, the architect must always remain an artist—one who was inspired not only with the synthetic gift, not only with the intellectual gift, but also who had the emotional gift to bind together into a living organic whole something which he presented in such beautiful structures as those shown in Mr. Bradshaw's drawings. In addition also to the reconstructions in Italy, there was that wonderful type of reconstruction in Greece: he (the speaker) had devoted four years of his life in the reconstruction of the Argive Heraeum, in which the American architect (Mr. Tilton) who assisted him showed similar artistic and imaginative skill, coupled with soundness of study, to that shown by Mr. Bradshaw. All these reconstructions brought back to us in living form the splendour of the ancient buildings of Greece and Rome.

Professor H. E. BUTLER, Professor of Latin, London University, said he had been extraordinarily interested to see this reconstruction of this wonderful site. It gave them what many reconstructions did not give, a sense of reality, not a sense of what he might call the decorative or paste-board reconstruction with which many of them had been familiar in their school days.

Mr. H. HEATHCOTE STATHAM [F.] said he would like to say a word in recognition of what he would call the extremely thorough and logical investigation which had been at the basis of all Mr. Bradshaw's restoration. For many years past he had seen at the Salon what was the annual great show of the Architectural Room, the restoration of some ancient temple by the French School at Rome. One would see there a drawing labelled "état actuel," and on that the imagination of the architect had erected something which was very fine, but for which he had not the remotest data. Mr. Bradshaw, however, had been most logical and careful in verifying all the data which could be got on the spot, and it must have been difficult indeed to get this now that the site had been so much built over.

The PRESIDENT said it was a good thing for architects to dip now and then into the cool backwaters of the past, and they were glad to see with them that evening the archæologists, to whose efforts, with, perhaps, a little help from the Institute as he had already mentioned, they really owed the existence of the present School at Rome, and the excellent results which Mr. Bradshaw had shown them. In mentioning names, he had forgotten to mention one who had done a great deal of the work, and to whom a considerable measure of the honour was to be attributed—viz., Mr. Baker Penoyre. Mr. Penoyre and himself had worked together for many years on this subject, and Mr. Penoyre would remember the friendly talks and squabbles they had in the early days. He (the President) did not know Praeneste, and was thankful to have made its acquaintance through Mr. Bradshaw's admirable restoration.

Mr. BRADSHAW, in making his acknowledgments, said it was a source of great gratification to him to find that Praeneste was not without interest to the Institute. Had it not been for the Rome Scholarship he could not possibly have produced the drawings. There was still much to be done in Rome, there were many more subjects of interest to architects, and he would like to express his gratitude to the Institute, through whose instrumentality the Rome Scholarship in Architecture was founded, for the great opportunity it had given him to deal with the problem and to interest himself in a subject which would otherwise have been beyond his powers.

Sir REGINALD BLOMFIELD, R.A., Litt.D. [F.], Chairman of the Faculty of Architecture at the British School at Rome, writing of Mr. Bradshaw's Restoration in Vol. IX. of the School Papers, says:—

Mr. Bradshaw's restoration of Praeneste illustrates in an admirable manner the aims of the Faculty of Architecture in the British School at Rome. His beautiful drawings speak for themselves, but I would call attention to the research which Mr. Bradshaw has devoted to his subject, not merely the ransacking of published works on Praeneste, but his own careful notes and sketches made on the spot and embodied in his scholarly reconstruction. I recently heard of a student in the school at Rome of another country who was found manufacturing a gigantic drawing, elaborately shaded and tinted, by means of the enlargement of small scale illustrations from various published works. Many of these illustrations, as is well known to students, are quite inaccurate, and the whole proceeding was worthless to the student and to anybody else. The result, except as an exhibition of draughtsmanship, is useless. The student is only training himself in shams and is shirking the mental discipline of endeavouring to find out for himself, by his own observation and sifting of evidence, the actual facts of the building which he presents. Ever since the days of Quatremère de Quincy there has been an unfortunate tendency among students to concentrate their efforts on plausible versions of their subject, trucked out with all the resources of draughtsmanship, rather than on an honest statement of the facts as they are. Draughtsmanship is not architecture, neither is it scholarship, and the danger of treating architecture as an affair of attractive drawings has been growing in recent years. In our architectural exhibitions, for example, for one good working drawing of a design, we get twenty more or less brilliant water-colours which may attract the unknowing but divert attention from the design to the accidents of its presentation. To put it another way, draughtsmanship is taking charge of architecture, and this is a tendency which ought to be firmly resisted. Good draughtsmanship is necessary for the architect as for every artist, but it should not so overpower the design as to make him forget that drawing is not design. In Mr. Bradshaw's work, beautifully drawn as it is, draughtsmanship takes its proper place as the servant, not as the master.

It is sometimes suggested that work such as this, based on the patient study of fragments of antiquity, is of little value to the student, that it is remote from practice, and tends to grandiloquence rather than capacity in design. I believe this to be a misconception. The study, for which the School of Rome provides such excellent opportunity, should be regarded not as technical instruction, but as educational; a course in the higher scholarship of architecture to which too little attention is paid in the modern practice of the art. When a student has mastered the elements of construction and design, and the other subjects with which architects are expected to have some acquaintance, when, in short, he has completed the regular qualifying courses, he is still only on the threshold of the art. He has yet to learn its possibilities, as shown in the great work of the past, and

learn it, not in the old haphazard fashion of filling a sketch-book with details of carving and the like, but by means of critical analysis and the attempt to penetrate to the meaning of great buildings taken as a whole in plan, section, and elevation. One fine building so analysed and mastered in all its aspects is worth much promiscuous sketching. Only so can the inordinate craving for the picturesque be dominated. But there is one much worse tendency than this about in modern architecture, and that is the conversion of the art into terms of commerce, the practical repudiation of architecture as an art, and its practice as a more or less reputable business. The only way to check this is to insist on a higher standard of attainment in design, on finer ideals, and on something more than a merely perfunctory acquaintance with what architecture has done and can still do when rightly handled. It is the high aim of the British School at Rome to check these tendencies, and the founders may congratulate themselves that so early in its history one of its scholars has been able to produce such admirable work as Mr. Bradshaw's restoration of Praeneste.

CORRESPONDENCE.

Treasures of the R.I.B.A. Library.

*British School of Rome, Valle Giulia, Rome 51 :
9 Jan., 1921.*

To the Editor, JOURNAL R.I.B.A.—

SIR.—May I be allowed to make some remarks on points of detail which are raised by your report of Mr. Dircks's interesting and scholarly paper on the treasures of the R.I.B.A. Library?

(1) The first edition of Labacco's *Libro appartenente all' Architettura* was published in 1552, and a second edition with slight variations appeared in the same year, that of 1557 being only the third. I have given a full bibliographical account of the book in *Bibliofilia* XVI. (1914-15), pp. 289-309, and I am sending a copy of the article to the Library.

(2) Palladio's *Antichità di Roma* was first published in 1554.

(3) Twenty-six of the views engraved by Pittoni and published in Scamozzi's *Discorsi* (1583) were first published by Hieronymus Cock, of Antwerp, in 1551, under the title *Præcipua aliquot Romanæ Antiquitatis Ruinarum Monumenta*. As soon as the ten years' copyright had expired, Pittoni copied these plates and issued them under the same title, reversing them and altering their order. He had obtained (so Mr. Horatio Brown, who has seen the original document in the Archives at Venice, informs me) a general copyright for all works relating to Rome, on 29th July 1561, and in his preface he, like other Venetian pirates, makes no mention of Cock, but speaks of them as "drawn and engraved not without great labour on my part," and tells Daniello d'Anna, a member of one of the most illustrious families of Flanders, to whom he dedicates the book, that he had been a long time

thinking about it before deciding to dedicate it to him. Scamozzi's edition contains 14 additional plates, bringing the total up to 40. They were also imitated by J. A. Du Cerceau (Geymüller, *Les Du Cerceau*, p. 299).

(4) More prominence might, I think, have been given to the architectural draughtsmen and engravers who worked in Rome in the latter half of the seventeenth century—such as Giambattista Falda and Alessandro Specchi, whose works had a considerable influence on Piranesi and are also valuable as illustrations of baroque architecture. Those of the latter especially are not as well known as they deserve to be.

I may, perhaps, at the same time be allowed to congratulate Mr. Dircks on the way in which he has brought into prominence the most important contents of the splendid library that he has in his keeping.—I am, Sir, yours very faithfully.

THOMAS ASHBY.

Director of the British School at Rome.

19 Jan. 1921

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR.—I am very grateful to Dr. Ashby for his useful bibliographical notes. I much regret that I had not an opportunity of consulting his account of Labacco in *Bibliofilia* (which, by the way, has not come to hand at the time of writing) before making any statement about an edition of his works. I had Roman bibliography continually at the back of my mind while I was writing my paper; but within the limits of a single paper dealing with an extensive subject I had constantly to reconcile myself to eliminations.

With regard to Piranesi (with whom British architects had so many associations), the fact that I said in his works "we arrive at a culminating point of architectural draughtsmanship" indicates, but perhaps not sufficiently, that I was aware that he was preceded by other notable engravers, but by none who, to my mind, can be compared with him for his bold delineation of architecture.

I have to thank Dr. Ashby for his kind personal references to myself.—Yours sincerely,

RUDOLF DIRCKS.

Books Received.

- The Eighteenth Century in London: An Account of its Social Life and Arts. By E. Beresford Chancellor, M.A., F.R.Hist.Soc. 40s. Lond., 1920. 35s. net. [B. T. Batford, Ltd., 94, High Holborn, W.C.]
A Handbook of Formulae, Tables and Memoranda for Architectural Surveyors, Draughtsmen and others engaged in Building. By John Thomas Hurst. 16th ed. 1921. 10s. net. [L. & F. N. Spott, Ltd., 57, Haymarket, S.W.]
Town Planning Review (University of Liverpool), Nos. 3 and 4, Vol. VIII, Dec., 1920.—The Site Planning of Housing Schemes (A. C. Holliday); A Review of the Present Position of State Housing (Longstrech Thompson); The Paris Competition (Adrian Berrington); Town Planning in relation to Housing and Open Spaces (K. H. Martock); Welwyn Garden City (R. J. Reiss); Town Planning and Public Cleansing (Patrick Abercrombie); Tremadoc (R. D. Jones); The "New Town" Proposals (T. Alwyn Lloyd). Reviews: Chronicle.
The Architects' Standard Catalogues 1920-23. Ironmongery and Joinery; Sanitary and Water Supply; Lighting and Fittings. 3rd ed. Vols. 4, 5, 6. 40s. 45s. The Standard Catalogue Company, Ltd., Bloomsbury Hall, Hart Street, W.C.1
The Book of Bungalows. By R. Randal Phillips, Editor of "Our Homes and Gardens." 80s. Lond., 1920. 8s. 6d. net. [Oliver et Country Life.]
The Story of Holy Trinity Parish Church, Hull. By the Rev. G. J. Jordan, M.A., B.D., F.R.Hist.Soc. 80s. 3s. 6d. net. [Oxford University Press, and B. Goodwin Masterman, 50 & 51, Paragon Street, Hull.]

ART IN ENGLAND.

UNDER the heading "Art in England" an interesting discussion to which several of our best-known artists and connoisseurs have contributed, has been carried on from day to day in the columns of *The Morning Post* [4-13th January inclusive]. The end in view has been to bring together art and commerce into a more sympathetic relationship, and the hope is expressed that, with the concurrence of the collectors and the good will of the artists themselves, the discussion may be of permanent service to art. That art and its exponents should be feeling the pinch of the times was to be expected; but there seem to be other reasons for the dearth of public patronage.

Who is the enemy? asks Mr. D. S. MacColl, Keeper of the Wallace Collection. Many have been named in this discussion: Lack of exhibitions; the public that does not buy; the foreigner who cuts in; the Old Master; the State and municipalities who do not "encourage"; the small flat that has no room for pictures, and so on; while the greatest of the external enemies has oddly enough escaped notice, namely, the photographer; it is he who has cut off the demand from people of modest income, and easily satisfied taste for portrait, landscape, and other kinds of picture. But there is besides these an enemy who may be profitably considered: the artist himself. The artist expects to be encouraged by the public client, without encouraging that client in return. He claims to pursue his private art in public instead of learning a public language. We saw this at the exhibition of the War Museum's pictures. Here was a group of painters engaged on the decoration of a projected memorial hall, who had not only no common agreement about scale, system of relief, gamut of colour, and so forth, but not even a common grammar of drawing: it was a moot point among them whether a circle in painting should be represented by a circle or a square. In the same way it is notorious that our sculptors are, almost to a man, innocent of the elementary architectural conditions that should govern sculpture: the effect upon it of its framing. That perhaps is not wonderful, seeing what a jumble is our public form in architecture. A man knows that there are limits to the indulgence of his private activities in public: he is not allowed to shave, to dance a jig, or to sit down and think about his sins in the roadway of Oxford Street or the Strand; but on either side the shopman or house-owner, or his architect for him, demonstrates a wild individualistic fancy in building, and cocks snooks at us along the whole length of these thoroughfares. There are signs of better days in architecture, but in sculpture and painting we are without a public language, and without anything to say in it if we had one. The War brought a subject and commissions: Peace finds us bankrupt, suspicious of all imagery and speech, fain to be content with a cenotaph, a silence, an unseen, a nameless hero.

Sir Reginald Blomfield, R.A., Litt D. [F.] entering the debate, touches upon architecture.

Modern English architecture (he says) is good and bad; the work of the best men is very good and that of the worst men very bad indeed. In domestic architecture we are supreme, and in the design of civic buildings we are good, but the best Frenchmen understand scale and the grand manner better than we do.

The most dangerous modern tendency here is the introduction of the wrong form of Americanisation in a way that

I believe to be rapidly disappearing in America, where their best men are reverting to the "Colonial" tradition. The effect of this tendency is to convert architecture into a gigantic manufactory of designs by clerks and draughtsmen, the principals acting as "job" collectors. This involves the disappearance of the individual touch (and individuality is of the essence of art), and the production of rather stuffy modern French classic, a very different thing from the great French tradition of the eighteenth century, such, for example, as the manner of the Petit Trianon and the Ecole Militaire. Our best men are getting rid of irrelevant detail and aiming at simplicity of statement, but this is not the same thing as the callous utilitarianism of the engineer and builder. Architecture should rather be the fullest expression of the purpose of the building, including in that purpose the æsthetic appeal. Such an appeal is not made through details of ornament, or even of colour, but by the mass, spacing and proportion of the building. The simplicity arrived at is the simplicity of all great style, and it is as intensely personal in architecture as in any other of the arts.

Dealing with architecture in relation to sculpture, Sir Reginald affirmed that architects and sculptors ought to work much more closely in touch with each other, and this means a good deal of concession on both sides. To separate the arts into watertight chambers is a dangerous practice. The great decorative schemes of the seventeenth and eighteenth centuries were only possible by the intimate co-operation of architects, sculptors, and painters. The failure of modern artists was attributable in a large degree to exhibitions, and in a lesser degree to museums. He thought the latter were dangerous, because in them the arts are divorced from their proper settings, and exhibitions were dangerous because they tended to create anxiety to shriek louder than one's neighbour. He entirely concurred in the view that much greater opportunities should be given to decorative art and sculpture for public buildings.

Mr. John Duke Coleridge [F.] says: Mr. Charles Marriott has gone to the root of the matter when, following Prince Albert, he demands that artists and craftsmen should be directly and individually "employed" by their patrons. We suffer as an artistic nation under the domination of the great firms of decorators. The wealthy patron sends for the head of one of these great firms and receives a plausible gentleman in a shimmering high hat, who gets his work done for him, quite admirably as a rule. The high hat gets all the credit and most of the cash and perhaps deserves a fraction of it for his capacity in discovering, organising, and underpaying genius. What is wanted is a great guild of craftsmen in the various arts with a central clearing house, where the craftsmen themselves can be met and their work seen. As an architect I am continually in need of some such place, for mosaic, stained glass, carving, furniture, bronze, etc. At a central clearing house we could find out the younger and often better men. Architects have already an organisation for sorting out builders and tradesmen; why should this not be extended to include all artists and craftsmen?

Mr. Harold Speed holds that: What is wanted is a Grand Palace of the Arts provided by the nation with spacious accommodation for the exhibition of all the arts and crafts.

Mr. Walter Gilbert is sure that: No man can do more for the painter or the sculptor than the architect, for he by virtue of his profession has the *clientèle*, provides the materials and the surfaces and the settings for his brother artists, in proportion as he feels he has their sympathies for his building.

HENRY T. HARE, *Past President.*

Died 10th January 1921, aged 60 years.

THE HON. SECRETARY, MR. ARTHUR KEEN, at the opening of the proceedings at the General Meeting last Monday, addressed the meeting as follows :—

Before we proceed with the business of the evening I have to occupy a few moments in referring to Mr. Hy. T. Hare, whose death on Monday last we have to record with the greatest sorrow and regret. It is but a few months since I was speaking of him here on the occasion of the presentation of his portrait to the Institute, and but a few months earlier when he was still acting as our President. With his work and his personality fresh in your minds it seems superfluous to say very much, but I think members will wish to place on record their sense of indebtedness for all that he did on behalf of this Institute.

There are many men of standing and experience whose help in our affairs would be of great value, but who cannot find or make time, or have not the inclination or perhaps the capacity for such service, but Hare, overburdened with his own work as he was at all times, gave freely of his best in devoting his time, his experience, his energy and his knowledge of affairs in promoting the interests of his fellow members here and the interests of the profession at large. As Member of Council, Chairman of Committees, Vice-President, Honorary Secretary and President, and before these as President of the A.A., he worked for us unsparingly, and the sense of what we have lost must be very real and lasting in us all. It is a pleasure to us to remember his cheerful, optimistic disposition, the help and advice that were always at our disposal, and the convincing, reasonable manner in which he handled all matters that came under his direction. I can think of no one who has impressed me more with his grasp of things and the directness of his judgment on them.

Now we cannot repay our debt to him. In public life our debts are rarely paid to those to whom they are incurred: they have to be paid to those who follow and to whom we, in our turn, render such service as we can, and to whom we hand on the tradition that we have received: but I feel sure that Hare would have been the first to acknowledge how much this Institute and the Architectural Association had meant to him. He sought little relaxation from his work in games or amusements—all too little as it proved—and the friendships and interests that he found here meant, in my belief, a very great deal to him, and I hope he found in them some compensation for what he gave us.

Of his architectural work you know as much as I can tell you, for most of it has been published. With all the valuable help that he had from his friend Mr. Thos. Davison, who co-operated with him for years, he worked himself unceasingly at the drawing board, and my own feeling is that he not only established a high standard of planning in public buildings, but he played a large part in that development of English

Classic that is still proceeding, and has still far to go. His buildings were strongly handled, well composed, original in treatment, and he used the features of Classic design in a sound and capable way, with a great deal of freedom but with a constant tendency towards greater purity of style. At the same time I think everyone will admit that his Bangor University College, which I regard as his finest work, showed full realisation of the capabilities of Gothic work. I speak of it as Gothic, although, as you know, in detail it is not really Gothic at all. There was nothing idealistic, nothing eclectic in his work: it was essentially modern, intellectual and fearless. I think that a considered judgment of all the vast number of buildings that he produced leaves us with the feeling that he did nothing that was perfunctory, mean or commonplace: his standard was the best that he knew and he never satisfied himself with less. The references that have been made to him in the public press have been unworthy of their subject, for there have been very few architects who have served the public as well as he in providing buildings of which the towns and cities that possess them have reason to be very proud. We can speak of him here with no uncertain sound in insisting on the value of his influence on the course of modern developments, and I am anxious that we should record our feelings of indebtedness, of loss, and of very deep respect.

The PRESIDENT said that it was unnecessary for him to add anything to Mr. Keen's apt and eloquent statement. They at the Institute all felt very, very deeply the passing away of their old friend. He (the President) had been present at the funeral at Golder's Green on Friday, and had been gratified to see the large gathering of members assembled there to pay this last tribute of respect and affection for him. He had received on the day following the funeral a letter from Mr. WILLIAM A. PITE, which he would read to the meeting. He said :—

"I quite hoped to have been present at the meeting on Monday, but it is impossible as I have to preside at a meeting elsewhere. I should like to have had the privilege of adding a few words—though halting—to those of others, in grateful tribute to the memory of our late Past President. The memory of Henry T. Hare cannot but be a lasting one, and his works will survive him.

"It seems to me singularly appropriate that the announcement of the Deed of Award of Studentships and Prizes should be made on the same evening when the aspirations of so many young men present will be stimulated and quickened.

"Hare's life work and influence should be an inspiration to all: for not by natural instinct alone, but by assiduous labour and indefatigable industry he built up a lasting body of knowledge and character which stood him in good stead and never failed him in after life.

"The charm of his personality, his true kindness of heart, endeared him to all who knew him and pro-

mised so much for the years to come, that it is difficult to realise that we shall see him no more.

"May I make a suggestion which is, no doubt, in your mind too, that an exhibition of some of his works should be held later on.

"Sad though the occasion of our gathering was yesterday, the silent expression of our common fellowship with each other was very welcome."

The following resolution having been put to the meeting, members signified their assent by rising in their places and standing for a few moments in silence:

RESOLVED. That the Royal Institute of British Architects desires to express its profound sorrow at the passing away of its Past President, Henry T. Hare, and that there be placed on record in the Minutes of the Meeting an expression of members' appreciation of and gratitude for his inestimable services to the Institute and to the profession. Further, that a message expressive of members' deepest sympathy and condolence be conveyed to his widow and family.

MR. PAUL WATERHOUSE, F.S.A., writes:—

I want to be allowed to say about our late friend a few of those words which can best be said by a companion of fairly long standing. I never knew Hare "at home," as the schoolboys say, but I can truly say of his friendship that I was always "at home" with him. For many years he and I were colleagues as Institute workers: we sat for many sessions on the Council together, and I know—few can know better—the loyalty of his service to our corporate interests. I never thought of Hare as old or young: least of all did I ever look on him as one who was likely to be called away early to leave this world of ours.

We thought of him, did we not, as a worker—one who, whether plunged in the toil of practice or engrossed in the affairs of our little State—the republic of architecture—was always a willing worker and a working well-wisher.

Pre-eminently he was one who seemed always at call: put him in front of an opportunity or a duty and he was up and doing. That was the spirit in which he won his many competitions, that was the spirit in which he must also have borne the sickening disappointments which interleave the successes in the lives of competition winners. That, again, was the spirit in which he became not only our President and the President of the Architectural Association, but also a strenuous toiler in the humbler walks of committee service and of that continuous *camaraderie* which marks so happily the corporate life of our profession.

In the course of the war a little committee was set up whose functions were to deal with the exigencies of certain special cases of war hardship. It was a committee charged with the entirely private and confidential consideration of unexpected misfortunes brought upon individual architects by the war, and on that committee it was my privilege several times to confer with Hare on the painful subjects on which we

were thus engaged. Need I tell you that this experience gave me a most happy insight into a tender and sympathetic side of his nature. I am grateful for those occasions of meeting him: they gave me one more proof of the existence in him of that spirit of fellowship which I know he believed to be essential to the well-being not only of architects but of their art itself.

Others will write of his works and will deal more fully with the facts of his life. My little word is only a word of affection and of farewell.

I could not go to his funeral, but twice on that sunny day I stood by one of his works and gave thanks for the thought that the spirit of an architect, when it leaves our world, is not wholly disembodied, but leaves behind it, in his work, a form, a countenance, a visible language to which his friends can look with something of understanding.

PAUL WATERHOUSE [F.].

The following were among the large number of members present at the funeral ceremony, which took place at Golder's Green on Friday the 14th inst.:—Messrs. John W. Simpson, *President*, W. Gillbee Scott, Arthur Ashbridge, G. E. S. Streatfeild, John Slater, Max Clarke, G. Hornblower, D. Barclay Niven, Louis Ambler, Horace Cubitt, W. A. Pite, Herbert Shepherd, Alan E. Munby, Arthur Keen, *Hon. Secretary*, E. Guy Dawber, *Vice-President*, H. D. Searles-Wood, C. Wontner Smith, Delissa Joseph, H. V. Ashley, Ian MacAlister, *Secretary R.I.B.A.*, F. R. Yerbury, *Secretary A.A.*

Letters of regret for inability to attend were received from Sir William Emerson, Sir Ernest George, R.A., Mr. Edwin T. Hall, Mr. C. B. Flockton, and Mr. Ernest Newton, R.A.

Mr. Hare, who was a native of Scarborough and was educated privately at Sheffield and Harrogate, served his articles with Mr. C. A. Bury, of Scarborough, and afterwards studied at the Ecole des Beaux-Arts, Paris. Later he was an assistant in the offices of Mr. Z. King and Mr. R. H. Hill. Sitting for the examination qualifying for Associateship in 1886, he came out top of all the candidates of his year and was awarded the Ashpitel Prize. He was elected Associate in 1887, started practice in 1891 and proceeded to the Fellowship in 1898. Having been elected President of the Architectural Association in 1902, he came on to the R.I.B.A. Council as A.A. representative and sat continuously on the Council until his death, filling the offices successively of Vice-President (1904-8), *Hon. Secretary* (1909-13), *President* (1917-19), and *Past-President* (1919-21). He had served on the Standing and various Council Committees, and in 1907 read a Paper before the Institute, "Some Suggestions for a Simple Architectural Plan for Public Libraries" [*JOURNAL*, 23rd March 1907]. His portrait, painted for the Institute by Sir Wm. Llewellyn, A.R.A., was formally presented at a Special Meeting held on the 23rd February last year, and was afterwards exhibited at the Royal Academy—a photographic reproduction will be found in the *JOURNAL* for 6th March 1920.

After the outbreak of war, Mr. Hare filled for some time the position of Hon. Secretary of the Executive and General Purposes Committee of the Architects' War Committee, resigning to take up a Commission in the Army Service Corps. He was sent out to France on special service in connection with the billeting of the troops. While on this service he was instrumental in preserving from damage some of the old French chateaux and other historic buildings. Returning to England in January 1917, he was given a position at the Ministry of Munitions, and eventually succeeded Mr. Ernest Newton as Technical Adviser to the Building Works Section, holding the position until the end of the war.

This notice would be incomplete were not some idea given of the extent of Mr. Hare's labours for the Institute during his term as President. Quotation is therefore made from the *JOURNAL* of the 6th March, where the presentation of his portrait is recorded:—

Mr. Hare was President during a time of extreme difficulty and anxiety. Never, perhaps, in the history of the Institute have the affairs of the profession made so great a demand on the time and energies of the President. In July 1917, when he came to the Chair, the end of the war was far distant, but the problems of the reconstruction of industry and the housing of the workers at the restoration of peace had begun to exercise the mind of the Government. Mr. Hare took the initiative in forming a Committee of members of the Institute and the Allied Societies to consider the whole question of housing from the architect's point of view, and he lost no opportunity, by means of deputations and written communications, of pressing upon the Government and local authorities throughout the country the desirability in the interests of the community of employing competent architects and giving them a free hand in the design of the houses and the lay-out of the sites. He was a member of the Government Committee formed to discuss this question, together with those of building construction and materials, and at various times he attended as a witness and gave evidence before the Ministry of Reconstruction. He directed the work of organising and adjudicating upon the National Housing Competition, when 686 designs had to be dealt with in the London area alone. He prepared an exhaustive report to the Government on the result of the competition, supplementing it with practical suggestions as to the best means of solving the many problems involved. He was Chairman of the Committee charged with the production of the book of Cottage Designs published by the Institute at the request of the Local Government Board. He brought about the Conference of representatives of architects, surveyors and builders to assist, by their suggestions, the authorities in restarting the building and kindred industries on the conclusion of peace. He was Chairman of the Conference of representatives of the Institute and Allied Societies, the purpose of which was to consider ways and means of raising the status of architects and improving the relations of the provincial societies with the parent body in London. Two of the meetings were held in Manchester and Birmingham, and Mr. Hare presided on each occasion. He initiated the movement for reform in the Law of Ancient Lights, the Bill for which, together with a long and reasoned memorandum on the subject drawn up by Mr. Hare, was sent for consideration by the Lord Chancellor. The records of the Institute show

that Mr. Hare, during his term as President, took the Chair at over 150 meetings and other functions connected with the Institute. His tact, his foresight, his sagacity and soundness of judgment, his evenness of temper and invariably good-humour, made him an ideal Chairman, and these qualities served the profession in good stead on the various occasions when he was brought into personal contact with members of the Government and heads of Government Departments. As the present President once observed, it was a characteristic of Mr. Hare that he had on every occasion a very clear idea in his own mind of what ought to be said, and he never failed to use exactly the words that were best fitted to convey it.

An extract from Mr. Arthur Keen's remarks in unveiling the portrait recalls important services for the profession in other directions:—

The first real insight I got into his capacity and quality was when I became aware of the award that he had given in a competition of some importance in which he had been assessor; and I was profoundly struck with the simplicity and directness, combined with a certain sense of authority, that there was in this award. My second insight was when he won a competition in which I myself took part. It was a very complex and difficult problem which was put before us, as I know very well; but Mr. Hare solved it with a scheme which was so extraordinarily simple and direct that it seemed to be the only, the obvious way of meeting the problem and solving the difficulty. But, of course, one knows something of these "simple" and "obvious" plans, of the patient and laborious steps by which, commonly, they are approached. I think there are many people who imagine Mr. Hare as one who soared quite suddenly and immediately into unquestioned success. He had his successes, but he has also had his disappointments, as most of us have had; and I think he could tell us himself, if he wished to, of long nights and laborious days spent in unrequited toil before he achieved the success which was ultimately his. When I came to know him personally, I realised that it was not alone by outstanding skill in the exercise of his professional work that he had achieved success, but also by a kind of indefinable winningness, may I say, of disposition, a sense of good nature and kindness, combined with extraordinary directness of judgment and power of expression that, I know, gave confidence to those who sought his guidance. No doubt that helped him materially in the success which he ultimately achieved. Certainly he has won his way into our esteem, and even into our affection; we have the greatest regard for him. But we do not appoint Presidents here from considerations of esteem and affection; we appoint them upon their professional record, upon their initiative and driving power, and on their capacity to represent, in an adequate way, the interests that are far too serious to be lightly entrusted to anyone's hands. Mr. Hare was extremely well qualified to accept the office of President, and he has not disappointed us in any way. . . . It has so happened that Mr. Hare's work has lain mostly—at any rate, to a very large extent—in the arena of competition work; and it is due in no small measure to his energies, his activities, his work and his influence in this direction, that the whole system of competitions in this country has been lifted on to an entirely new footing. And at length promoters of these competitions have come to realise and to accept their responsibilities towards those who take part in these competitions. . . . I might speak of Mr. Hare's work at the Architectural As-

sociation, of which he was one of the most worthy and respected Presidents. His work in that respect is well known. The only thing I wish to speak of emphatically at the moment is the question of public libraries. . . . The Public Libraries Act is not so very old. At first there were very few architects who realised what was expected in connection with it. Mr. Hare applied himself with singular vigour to the problem, and it was he who established the standard of the public library. When you go into a public library at the present time it seems quite an obvious sort of building; but at the outset it was very difficult to know what was required: what rooms there should be, what their relationship should be to each other, what books, if any, should be stored, how the public should have access to the books, how they should be arranged, and so forth; all questions of lighting, supervision and control. These matters were not then known, and it was Mr. Hare who explored them most successfully, and showed others how these things should be done. And I think you will agree with me that the average public library is a building we have every reason to be proud of, at all events not ashamed of. And, as everyone here probably knows, Mr. Hare has built a considerable proportion of the libraries of this country.

The following is a list of Mr. Hare's more important works:—

Staffordshire County Council Buildings (1892): Conversion of Claybury Hall, Woodford, into Lunatic Asylum, for the London County Council (1892-3); Municipal Buildings, Oxford (1897); Liverpool Technical School and Museum Extension (with Mr. T. Davison, 1897); Presbyterian Theological College, Cambridge (1897); Public Library for Shoreditch Borough Council (with Messrs. Spalding and Cross, 1897); Henley-on-Thames Municipal Buildings (1898); Southend-on-Sea Municipal Buildings (1898); Isolation Hospital at Bromsgrove (with Mr. H. R. Lloyd, 1899); Southend-on-Sea Technical School (1899); Technical Institute and Schools, Tunbridge Wells (1900); County Technical Schools, Stafford (1900); Isolation Hospital at Cradley Heath (with Mr. A. T. Butler, 1900); Isolation Hospital at Longton, Staffs (1901); New Buildings at Church of England High School for Girls, Upper Baker-street (1902); Harrogate Municipal Buildings (1902); Wolverhampton Free Library (1902); Southend Public Library (1903); Pontypridd Municipal Buildings (1903); Crewe Municipal Buildings (1903); Hamersmith Library (1903); Harrogate Library (1904); Islington Library (1905); United Kingdom Provident Institution Building, Strand (1907); University College of North Wales, Bangor (1907); Fulham Public Library (1908).

The practice will be carried on by Mr. Bertram Lisle [J.] (who was recently taken into partnership) under the title of Henry T. Hare and Bertram Lisle, at the present address, 2, Gray's Inn-square, W.C.

An Old Pupil's Tribute.

11 Gray's Inn Place, 14 Jan. 1921.

To the Editor, JOURNAL R.I.B.A. :—

SIR.—I hope you will find space for these few lines written as a tribute to my late master, Henry T. Hare.

To hear suddenly of the death of a friend who followed the same profession as oneself, especially when he initiated you into its mysteries and its ups and downs, produces a peculiar quality of sadness and regret. The loss is a most intimate one. In life he inhabited the same mental countries, so to speak, striv-

ing to find out the same secrets, to see them through the same mist, and, seeing them, to set them forth on paper by the same means to the same end.

When I first entered Hare's office he was at work on the United Kingdom Provident Institution in the Strand and two Carnegie libraries at Islington. His chief assistant, and sometimes partner, was Thomas Davison, and we were joined afterwards by the late G. L. Alexander, subsequently of Atkinson & Alexander. Frequently we tried Hare's patience to the utmost. On one occasion I remember Alexander and I holding the office boy upside down so that the coppers in his pocket fell all over the room as Hare entered. He only smiled at us and went into his own inner chamber without a word, shutting the door quietly after him. This was characteristic.

Looking back on those three years I would say that Hare's chief qualities were an all-pervading sense of fitness, sensibility of the kind that brooks no trifling, combined with a complete mastery of the art of planning.

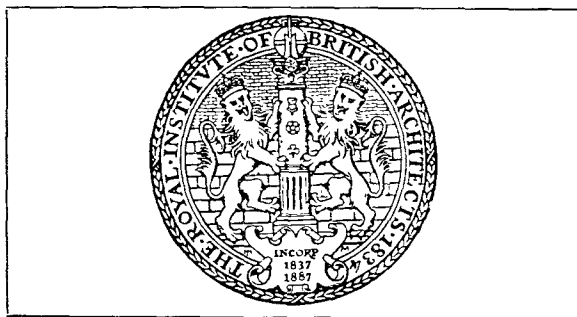
He took me with him once to see him assess a competition. He had previously planned the thing himself on paper according to his conditions, so that he might be familiar with the difficulties. Having made up his mind to certain essentials he threw out all the plans which did not comply and then spent two or three days over the remaining few. His award was thought to be just—a compliment not often paid to assessors.

He grasped the essentials in anything like a flash. He was an unusually clear thinker. At one time in those days he had several large buildings on hand, including the University College of North Wales at Bangor, yet the office was never disturbed, everything always went evenly and peacefully. He wrote all his letters himself and they were copied in the old-fashioned way by the office boy. He never seemed in the least upset about anything, and we used to draw and trace undisturbed. This was almost entirely due to Hare's serene way of looking at things, but I am sure he would like me to say that Davison greatly assisted him in maintaining this calm.

When in France I accidentally ran across Rickards disguised as a Lieut. A.S.C., who informed my astonished self that Hare was with him similarly disguised. They told some amusing stories about each other. That two such men should have offered their services in such a humble capacity can only call forth admiration for the men, but it speaks little for the country. There is perhaps no profession which strives harder or with more continuous effort for the good of its fellow-citizens, yet there is surely none whose merit is less recognised, nor one whose distinguished members pass on into the unknown with less public notice and appreciation.

Hare was pre-eminently a man who stood for fine architecture and for the proper appreciation of the profession by the public. We know and we understand; but "Is it nothing to you, all ye that pass by?"—I am, sir, yours faithfully,

W. W. SCOTT-MONCRIEFF [F.].



9 CONDUIT STREET, REGENT STREET, W., 22nd Jan. 1921.

CHRONICLE.

R.I.B.A. Prizes and Studentships 1921 : Deed of Award.

The Designs and Drawings submitted for the Prizes and Studentships in the gift of the Royal Institute are now on exhibition in the R.I.B.A. Galleries, 9 Conduit Street, and will remain open to members and the public until the 7th February (10 a.m. till 8 p.m.; Saturdays, 6 p.m.). The Council's Deed of Award, read at the General Meeting of the 17th January, gives the results as follows:—

THE ROYAL INSTITUTE SILVER MEDALS.

(i.) *The Essay Medal and Twenty-Five Guineas*.—Two Essays were received under the following mottoes:—

1. Egypt: "Egyptian Architecture."
2. Lucem Spero: "Domes, their Construction in Theory and Practice."

The Council have decided not to award the prize.

(ii.) *The Measured Drawings Medal and Fifty Pounds*.—Four sets of drawings were sent in under mottoes:—

1. "Ralph Allen": 6 strainers (Prior Park, Bath).
2. "Sapper": 5 strainers (Temple of Bacchus, Baalbek).
3. "Ajax": 6 strainers (Greenwich Hospital, King Charles Block)
4. Device of a triangle: 3 strainers (St. Mary Woolnoth).

The Council have awarded the Silver Medal and Fifty Pounds to the delineator of the drawings submitted under the motto "Ajax,"* and a Certificate of Hon. Mention to the delineator of the drawings submitted under the motto "Sapper."†

THE TRAVELLING STUDENTSHIPS.

(i.) *The Owen Jones Studentship and One Hundred Pounds*.—No applications received.

(ii.) *The Tite Prize and One Hundred Pounds*.—Eleven designs for an Italian Villa inspired by Pliny's description in his letter to Gallus were submitted under the following mottoes:—

- | | |
|-----------------------------|--|
| 1. "Anzac": 6 strainers. | 8. "Sealless": 6 strainers |
| 2. "Arc": 6 strainers. | 9. "Blue Square" (device): 5 strainers. |
| 3. "Gallus 1": 5 strainers. | 10. "Red Seal" (device): 4 strainers. |
| 4. "Gallus 2": 6 strainers. | |
| 5. "Gagan": 3 strainers. | |
| 6. "Gondola": 6 strainers. | 11. "Zut! c'est pas du Futurisme": 6 strainers |
| 7. "Isobel": 4 strainers. | |

* "Ajax": J. H. Odom [A], 289 Granville Road, Sheffield.

† "Sapper": C. Leckenby, 7 Cameron Grove, York.

The Council have awarded the Certificate, and, subject to the specified conditions, the sum of One Hundred Pounds to the author of the design submitted under the motto "Zut! c'est pas du Futurisme!"‡ and a Certificate of Hon. Mention to the author of the design "Gagan."§

(iii.) *The Henry Saxon Snell Prize and Fifty Pounds*.—No designs submitted.

(iv.) *The Godwin Bursary and Wimperis Bequest: Silver Medal and One Hundred and Thirty Pounds*.—One application was received, from Mr. Chas. B. Pearson [F.], and the Council have awarded him the Prize.

The Grissell Gold Medal and Fifty Pounds.—One design for a Kinema Theatre was submitted under the motto "The Villain" (5 strainers). The Council have decided not to award the Prize.

The Arthur Cates Prize and Thirty Pounds.—No drawings submitted.

THE TRAVELLING STUDENTS' WORK.

Godwin Bursary, 1919.—The Council have approved the report of Mr. H. Austen Hall [F.], who travelled in America.

Pugin Studentship, 1920.—The Council have approved the work of Mr. H. St. J. Harrison [A.], who was awarded the Studentship in 1920, and travelled in Worcestershire, Gloucestershire and Hereford.

Fixed Tenders for Building Work.

The Council, on the recommendation of the Practice Committee, invite the attention of Members and Licentiates to the great desirability of reverting as soon as possible to the pre-War practice of obtaining fixed tenders for building work. As the upward tendency of building prices appears now to have been checked, and some prices are falling, builders may reasonably be asked to give firm tenders, unqualified by reservations as to subsequent adjustments due to increased cost of materials or labour.

Prohibition of Building: Increase of Unemployment.

The following correspondence has passed between the Institute and the Ministry of Health:—

Nov. 23, 1920.

The Secretary, The Ministry of Health,—

SIR.—At the request of a large number of architectural bodies in the United Kingdom, the Council of the Royal Institute of British Architects have appointed a Committee who have been giving careful consideration to the effects of the restriction of building by local authorities in the interests of the National Housing scheme.

In the course of their enquiry the Committee have ascertained that certain local authorities are prohibiting the building of factories and commercial buildings which would provide means of employment when built.

My Council desire to bring this fact to the notice of

‡ "Zut! c'est pas du Futurisme!": Gordon H. G. Holt, 23 Meadway Court, Hampstead Way, N.W.4.

§ "Gagan": Archie Gilchrist Paton [A], 44 Apsley Street, Partick, W. Glasgow.

the Minister of Health, and to urge him to circularise all the Local Authorities to the effect that very careful consideration should be given to cases where the stoppage of factory or commercial buildings might be a cause for increasing unemployment among work-people who would otherwise be employed therein. I have the honour to be, Sir, your obedient Servant.

IAN MAC ALISTER, *Secretary*.

Ministry of Health, 6 Dec. 1920.

The Secretary R.I.B.A.—

SIR, —I am directed by the Minister of Health to advert to your letter of the 23rd ult., and to state that the question whether action should be taken under Section 5 of the Housing (Additional Powers) Act, 1919, to prohibit building operations which delay or are likely to delay the provision of dwelling accommodation is one for the decision of the Local Authority. The Ministry have no power to intervene except on appeal against a Prohibition Order.

I am, however, to forward for your information a copy of General Housing Memorandum, No. 22, which has been issued by the Ministry for the guidance of Local Authorities in considering cases under the Section, and to draw your particular attention to paragraph 8 (3).—I am, Sir, Your obedient Servant,

J. C. WRICLEY,

for Assistant Secretary

Paragraph 8 (3).—“Works of High Category” will include mainly industrial buildings in private ownership which cannot be prohibited without most serious consideration. These works are such as will result in increased employment, enhanced local revenue, enhanced national revenue (by way of export trade or otherwise), or some other result of public importance at the present time.

War Losses : Dilapidations : Architects' Fees.

In October last a case came before the War Compensation Court in which the Constitutional Club claimed against the Treasury for architect's fees for services in connection with dilapidations. The case had been brought to the notice of the Institute as one that was likely to become a test case with respect to architects' fees, and arrangements were therefore made for the Institute to be represented by counsel at the hearing. The Chairman of the Practice Committee, Mr. A. W. S. Cross [F.], was also in attendance to give evidence, if necessary, as to the customary charges. No attempt, however, was made to treat the case as a test case, and Mr. Cross's evidence was restricted to supporting the claim of the architect (Mr. Needham Wilson [A.]) for preparing a schedule of dilapidations and subsequently for supervising the work carried out under his instructions from the Constitutional Club. In his evidence before the Court, Mr. Needham Wilson estimated that the sum of £12,000 was spent on the Club for decorations and repairs, and of this sum about £8,700 represented expenditure in respect of dilapidations occasioned by Government occupation.

The War Compensation Court published its award on the 4th November and in the result allowed the

sum of £420 in respect of architect's fees, instead of the £565 6s. claimed. The Court also awarded a sum of £200 by way of costs to include surveyor's fees in the preparation of the claim. It should be mentioned that the £565 6s. claimed represented 5 per cent. on the total sum of £11,306 4s. 6d. which was the amount of the dilapidations awarded.

Messrs. Markby, Stewart & Co., the Institute Solicitors, in a letter to the Institute notifying the result, state:—"In awarding the sum of £420 the Court has allowed £5 5s. per cent. on a total sum of £8,000 for dilapidations occasioned by Government occupation, thereby admitting in principle the Institute's Scale of Fees. We consider this to be satisfactory from the Institute's point of view."

The Destruction of Serbian Libraries.

The Council of the Institute, on the recommendation of the Literature Committee, desire to make an appeal to members of the Institute on behalf of Serbia, whose libraries during the war were systematically dispersed or destroyed by their late adversaries. In the work of reconstruction she is largely dependent on the aid of her Allies, and gifts of books, more especially of an educational character, will be welcome. Those who are desirous of making any contributions to the libraries are invited to send as soon as possible lists of what they are prepared to give (books on history, belles-lettres, poetry, travel, theology, philosophy, science and education, etc., in any language), stating name of book, author and publisher, and date of publication. Only books in good condition are acceptable. Those who wish to help and who cannot give books are asked to send donations towards expenses, and for the providing of books that may be missing from among the gifts. All communications should be addressed to the Hon. Organising Secretary for the Reconstruction of Serbian Libraries, The Royal Society of Literature, 2, Bloomsbury Square, London, W.C.1.

The Housing Problem : Committee of Inquiry Appointed.

Dr. Addison has appointed a Committee to inquire and report as to the reasons for the present high cost of building working-class dwellings and to make recommendations as to any practicable measures for reducing it. The Committee will be constituted as follows: Mr. J. Stanley Holmes, M.P. (Chairman), Sir Thos. Robinson, M.P., Col. J. Ward, M.P., Sir Jas. Carmichael, Mr. Thos. Barron, Mr. A. G. Cross, Mr. F. G. Gayer, Mr. Jas. Gibson [F.] (nominated by the Council of the R.I.B.A.), Mr. A. W. Jenkinson, Mr. W. H. Nicholls, Mr. E. H. Selby, Mr. J. Walker Smith, Mr. S. Stranks. Mr. T. H. Sheepshanks, of the Ministry of Health, will act as Secretary to the Committee.

Higher Buildings for London.

The Times of the 24th ult. published the following from Mr. Delissa Joseph [F.] :

This question illustrates in a very interesting manner the growth of an idea. Last January *The Times*, in its Estate

Market column, threw out the suggestion that, as the demand for accommodation in Central London exceeded the supply, the time was probably approaching when a modification of the Building Act would have to be considered, permitting the construction of higher buildings. You permitted me to develop this idea in a series of letters, in the course of which I suggested buildings up to 200 feet in height might well be permitted facing parks, open spaces, and the riverside, pointing out that the increased assessments obtained on the higher buildings could be capitalised for the widening of congested thoroughfares.

The critics called these 200 feet buildings "skyscrapers," forgetting that American "skyscrapers" are anything up to 750 feet high.

This correspondence was followed by my reading, before the Royal Institute of British Architects, a Paper, in which I dealt fully with the various aspects of the question of "higher buildings," and the Paper was followed by a debate in which representatives of the leading authorities concerned took part. Subsequently the Royal Institute of British Architects appointed a special committee to consider the reform of the London Building Act, particularly with regard to the question of "higher buildings." Immediately thereafter, the Corporation of London referred the whole question to the City Lands Committee.

I subsequently pointed out that the end in view might be attained without altering the Act, because Section 47 of the Act of 1894 merely says that buildings should not exceed 80 feet high, with two storeys in the roof, "without the consent of the Council." This section is therefore permissive, and, provided the consent of the Council is given, there is, in my view, nothing in the Act to prevent buildings of any height being sanctioned.

The Council has since recognised this principle by sanctioning a new building in the City, which will be 110 feet to the top of the main cornice, instead of 80 feet, and therefore there is no reason why, in suitable situations, this permissive policy should not be extended.

In the meantime, we have a man of the authority of Sir Edwin Lutyens saying before the Architectural Association:—"With regard to the erection of higher buildings in London, he thought the higher they were built the better, and there should be no restrictions on their height"; while *The Times* of 17th December reports a Paper read by Mr. T. E. Collutt, before the Institute of Architects, in which he said:—"There is no doubt that in the future, whenever an opportunity arises and the surroundings are suitable, we must build upwards. Structures of the elevation of 250 feet, or even 300 feet, would not, in my opinion, create an overpowering effect."

Thus, in the course of less than a year, my suggestion of buildings 200 feet high has grown to 300 feet, and the London County Council has accepted the principle of permitting higher buildings under the present Act.

THE EXAMINATIONS.

The Final : Alternative Problems in Design.

Subject LV.

(a) A GATEWAY ENTRANCE TOWER TO A COLLEGE, with porter's lodge on one side of entrance. The roof to form a feature in the design.

Drawings.— $\frac{1}{8}$ -inch plans, section and two elevations; $\frac{1}{2}$ -inch detail.

(b) A MISSION CHURCH IN TIMBER on a brick or stone foundation on a site 30 feet wide. Light from front (west) and top, but the choir vestry under the chancel may have east light. The site falls to the east about 4 feet. No entrance from rear.

Drawings.—Plans, elevations and sections to $\frac{1}{8}$ -inch scale, and detail of front and cross section to $\frac{1}{2}$ -inch.

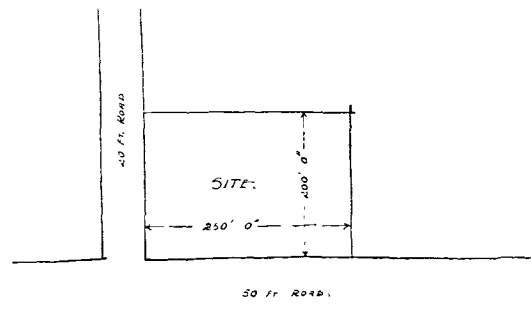
Subject LVI.

(a) MEMORIAL LIBRARY AND READING ROOM AT A LARGE PUBLIC SCHOOL.—The buildings stand alone, on level ground, the building materials to be stone, oak, and red roofing tiles.

Heating to be by means of radiators, one open fireplace.

Dimensions of internal area, 50 feet by 25 feet.

Drawings.—Plans and elevations to $\frac{1}{8}$ -inch scale. Portion of building with entrance doorway to $\frac{1}{2}$ -inch scale.



Plan of site to $\frac{1}{32}$ -inch scale.

(b) A REINFORCED CONCRETE DAYLIGHT FACTORY.—Total floor area, 70,000 feet super (provision to be made for future extension).

The following accommodation to be included:—

Ground Floor.—Manager's office. Three general offices (totalling 1,500 feet super). Despatch, 800 feet super (enabling lorries to be loaded under cover). Check office (adjoining despatch). Time hall (at employees' entrance, for checking employees). Works foreman's office. First and ward (near a lift). Engine room, 300 feet super. Heating chamber. Fuel store. Garage (for two works cars, no lorry accommodation required).

General.—Two goods lifts, each 6 feet by 5 feet. Lavatories (disposed either on every floor, or every other floor: total number of employees, 400 men, 200 women). Men's locker rooms, women's locker rooms, both adjoining lavatories.

Top Floor.—Canteen. Dining room for 20 (office staff). Kitchen, wash up, with hatches to canteen. Stores, etc. Kitchen staff lavatory.

(Note.—Factory outside London area.)

Drawings.— $\frac{1}{8}$ -inch scale: plans, section and two elevations; $\frac{1}{2}$ -inch detail.

Subject LVII.

(a) A PIER PAVILION, to comprise a concert hall, 45 feet by 80 feet, with stage for orchestra (20 performers) and such as can be used for small plays. Dressing rooms for both sexes. Refreshment bar.

Drawings.— $\frac{1}{8}$ -inch scale: plan, section and two elevations; $\frac{1}{2}$ -inch scale, detail of a bay.

(b) STONE LIGHTHOUSE.—The light to be 60 feet above sea level, on an isolated rock close in shore.

Drawings.—Plans and sections and elevation to $\frac{1}{8}$ -inch scale. Details, where given, to be $\frac{1}{2}$ -inch scale.

Dates for Submission of Designs in 1921.

	Subj. LV.	Subj. LVI.	Subj. LVII.
United Kingdom	28th Feb.	30th April	30th June
Johannesburg	30th April	30th June	31st Aug.
Melbourne	31st May	30th July	30th Sept.
Sydney	31st May	30th July	30th Sept.
Toronto	31st Mar.	31st May	30th July

MINUTES. VI.

At the Sixth General Meeting (Ordinary) of the Session 1920-21, held Monday, 17th January, 1921, at 8 p.m.—Present: Mr. John W. Simpson, *President*, in the Chair; 38 Fellows (including 15 members of the Council), 44 Associates (including 3 members of the Council), 4 Licentiates, 1 Hon. Associate, and numerous visitors—the Minutes of the Meeting held 3rd January, 1921, having been published in the JOURNAL were taken as read and signed as correct.

The Hon. Secretary having announced the decease of Henry T. Hare, *Past President*, referred to the long and valuable services he had rendered the Institute, and paid tribute to his estimable personal qualities and to the high merit of his work as an architect. A similar tribute of respect having been paid by Mr. William A. Pite [F.] in a letter which the President read to the meeting, it was

RESOLVED, That the Royal Institute of British Architects desires to express its profound sorrow at the passing away of its Past President, Mr. Henry T. Hare, and that there be placed on record in the Minutes of the Meeting an expression of members' appreciation of and gratitude for his inestimable services to the Institute and to the profession. Further, that a message expressive of members' deepest sympathy and condolence be conveyed to his widow and family.

The decease was also announced of Lieut.-Col. William Cooper, T.D., O.B.E., of Huddersfield, *Fellow*.

The following members attending for the first time since their election were formally admitted by the President:—Edward William Harvey Piper, *Hon. Associate*; Thomas Gordon Jackson, Matthew James Dawson, Arthur Fred Collins Bentley, John Standen Adkins, Archibald Frederick Preston, Charles William English, Thomas Arthur Darcy Braddell, Paul Phipps, Leonard Gray Ekins, Stephen Wilkinson and Frederick Robert Horns, *Fellows*; Donald John Moss, Charley Frank Boniface, William James Read and Cyril Savage Morley, *Associates*.

The President in introducing the lecturer of the evening recalled the initiative taken by the Institute in bringing about the establishment of the Faculty of Architecture at the British School at Rome.

Mr. H. Chalton Bradshaw [A.], Rome Scholar in Architecture, read a Paper on THE RESTORATION OF PRAENESTE, and illustrated it by lantern slides of his drawings and photographs. A discussion ensued and on the motion of Professor J. S. Reid, Professor of Ancient History, Cambridge, seconded by Professor Ernest Gardner, Litt.D., Yates Professor of Archaeology, London University, a vote of thanks was passed to Mr. Bradshaw by acclamation.

The Secretary having read the Deed of Award of Prizes and Studentships made by the Council under the Common Seal, the sealed envelopes bearing the mottoes of the successful competitors were opened and the names disclosed.

The Meeting terminated at 10 p.m.

The President, Mr. John W. Simpson, entertained the Secretary and the senior members of the Institute staff to dinner at the Devonshire Club, St. James's, on Wednesday the 12th inst. The guests included also Mr. Maxwell Ayrton [F.], Mr. Simpson's partner, and Mr. Henry W. Barrett, who has been with Mr. Simpson for twenty-two years as Secretary.

The President took the Chair at the 38th Annual Dinner of the Incorporated Clerks of Works Association of Great Britain, held at the King's Hall, Holborn Restaurant, on Saturday the 15th inst.

The President was the principal guest at the Annual Dinner of the Manchester Society of Architects held at Manchester on Tuesday the 18th inst.

Ministry of Health Form of Contract No. 3.

Will any architects who have used the Form of Contract No. 3 issued by the Ministry of Health kindly communicate with the Secretary of the R.I.B.A.?

Appointments, Professional Announcements, Reinstatements, &c.

Mr. A. Archer-Betham [A.] has been appointed Assistant Architect to the Government of Madras.

Capt. R. W. A. J. Cosway [A.] having completed his War service on the 17th ult., has recommenced his private practice at No. 18, The Carfax, Horsham, Sussex.

Mr. C. F. Stevens has been reinstated a Fellow of the Royal Institute.

Mr. W. A. Gagnon has been reinstated a Licentiate of the Royal Institute.

NOTICES.

The SEVENTH GENERAL MEETING (ORDINARY) of the Session 1920-21 will be held Monday, 31st January 1921, at 8.30 p.m., for the following purposes:—

To read the Minutes of the Meeting held 17th January; formally to admit members attending for the first time since their election; to announce the names of candidates nominated for election.

To announce the Council's Nominee for the Royal Gold Medal, 1921.

The President to deliver the Annual Address to Students.

Mr. H. P. Burke Downing, F.S.A. [F.], to review the Designs and Drawings submitted for the Prizes and Studentships, 1921.

Presentation of Prizes.

BENGAL, BURMA AND SIMLA.—Three Assistant Architects required under Government. Candidates must be Associates of the Institute, age 26-35 years. Salary varies according to age commencing 625 rupees per month at the age of 26. Good qualifications necessary; must be able to take independent charge. Three years' agreement, first-class passage paid. Further information can be obtained from Secretary R.I.B.A.

SHANGHAI.—Two Assistant Architects are required for the Works Department of the Chinese Customs Service at Shanghai. Candidates must be Associates of the Institute, about 28 years of age, with a good knowledge of reinforced concrete design and construction and with some responsible work to their credit; they should be unmarried. Salary Haikwan Taels 350 a month increasing by Haikwan Taels 50 a month for every two years' service in China to a maximum of Haikwan Taels 500; and allowances. (The Haikwan Tael may be considered to be worth normally 3s., but its present value is about 6s.) First-class passage paid and £50 travelling expenses. Applicants should address themselves to the Secretary R.I.B.A., 9, Conduit Street, W.

ARCHITECT, age 25 to 30 years (unmarried) required for Baghdad. Salary 800 to 1,000 rupees per month. Passage paid, free quarters and medical attendance. Must be expert designer, good at details, materials chiefly brick and concrete. Exceptional opportunity for advancement for a pushing, capable man. Three years' agreement with usual notice clauses. Write (not call) for appointment to Messrs. Metcalf and Greig, Architects, Imperial Buildings, Kingsway, W.C.2.

WANTED.—Office or share of office in West Central district, near Lincoln's Inn Fields. Telephone essential. Address P.O. 1411, Secretary R.I.B.A., 9 Conduit Street, W.

FOR SALE AT ONCE.—Old-established Architect's and Surveyor's practice. Tenancy of office in Winchester transferable to a purchaser approved by the landlord. Books available for inspection. There is an insurance agency producing over £40 per annum. Advertiser (A.R.I.B.A.) has also small new up-to-date cottage for sale. Possession April. Apply P.O. 1711, Secretary R.I.B.A., 9 Conduit Street, Regent Street, W.1.

MR. CECIL MASEY, *Licentiate*, of Green Chambers, Devereux Court, Strand, W.C.2. Telephone: Central 2166, is anxious to obtain a copy of the *British Architect* of 8th November 1889, containing an article and sketches by his father, and would be glad to hear from anyone having a copy to spare.



ADDRESS TO STUDENTS.

By the PRESIDENT, MR. JOHN W. SIMPSON, *Membre Corr. de l'Institut de France*.

Delivered at the General Meeting of the Royal Institute of British Architects, Monday, 31st January 1921.

*"the Exception of young Men as more lively, than that of
old: And Improvements streame into their Minds
better, and as a new, more directly."*

BACON

THE Address which I have the privilege of delivering to-night is that directed—by long custom of the Royal Institute—to Students of Architecture, upon the occasion of presenting to them the Prizes they have won by meritorious performance. Highly as I esteem and appreciate this privilege, it implies, as I view it, one of the greatest of the many responsible duties laid upon your President. Himselt a student—for we architects must ever be learning, storing the little cistern of our capacity with drops of knowledge yring from work and experience—it falls to him to advise, encourage, and help his younger fellow-students. The task is both difficult and delicate. Architectural students are critical folk, whose training teaches them to require the best of workmanship and material, to detect and reject those of inferior quality. They are not to be tumbled off with second-hand mental wares, nor propounded by faded posies culled from the garden of art, where the choicest flowers are common property.

* * *

There exists, I suppose, in the mind of every man who has lived, loved, read, and observed in reason and variety, the equivalent of that spare drawer wherein we keep discarded trifles, in a mulish belief that they will at some time be needed again. The little key of which the lock has disappeared, disparate fragments of wood and metal fittings, burnt-out pipes powerfully fragrant of former happy days, perhaps a glove—or two, unseellaneous which "it's a pity to throw away." Ladies, I am told, are free from this agreeable weakness, and if a hat—for example—has seen its day, will scrap it ruthlessly, as Americans do machinery. A man would wear it till it fell to pieces, and then secrete it, with the idea that it might "come in useful for something else." Turning over, therefore, the half-forgotten contents of my memory in search of a fitting subject for this discourse, I found, without surprise, much to set

aside as unworthy of presentation : many items sadly incomplete, some out-of-date, others a bit rusty and unfit for use without refurbishing. But, I came upon an incident of which my friend Barry Pain once told me. " For some years," he said, " I wrote a sketch-story of about a thousand words every week for an illustrated paper—work which should have been easy enough. One day, however, I began to worry. I wondered what I should do if one week I found that I had got nothing—that I had come to the bottom of the bag. I wasted a whole morning in this silly way : then I saw what an idiot I was, and wrote a story about an author who did come to the bottom of the bag." The story conveyed the moral for me that it does for every creative artist—" There is always a fresh side to the obvious." Why, thought I, should I sift out matter for an Address to Students from a heap of book-knowledge, when I have been for forty years in the active practice of their profession, and have learned things they cannot find in books. There was no need to look further for my theme.

* * *

" Nos te nos facimus Fortuna deam."—O Fortune, it is we ourselves who make thee a goddess—quotes Samuel Butler ; and shrewdly observes that this is only true after Fortune has made us able to make her so. The poet says nothing as to the making of " nos." I saw myself, not in 1881 when I was taken into partnership by an older man—continuing my work at the Royal Academy schools in the evening—but, some three years later, when that arrangement had terminated. A life-belt is a useful contrivance, but it hampers the movements of a swimmer. Being both hopeful and short-sighted I had cast mine away, and was now in deep water : to be more exact, in a tiny office of my own, with no very clear prospects and a rental liability about my neck of some twenty pounds a year. Here I spread out some papers and drawings to suggest pressure of business, and hung perspective views upon the wall : mendacious indications of vast experience in the erection of buildings.

I digress for a moment on the subject of the architect's office—that, at any rate, in which you receive your patrons. Like everything else you create, it will be, in some sort, a portrait of yourself. See that it be a pleasing one. For the most part it is made in the likeness of a second-rate solicitor involved in building speculations. Your office should have its distinctive atmosphere, congenial to a cultured client ; I would hardly commend perspective views for decorative purposes, or even for advertisement. Hang rather a few fine photographs of the great buildings of all time, which you and he can discuss with mutual pleasure and interest : little of your own work, and that carefully selected of your very best. If you bear this in mind the latter will be pretty frequently changed. We have many lady-students now, how many I do not know : a young gentleman of whom I sought information replied, " Oh, crowds." By reason of their sex they must needs possess that most valuable attribute of the architect, a " tidy mind " : and when their influence begins to be felt we may hope to find an improvement in our surroundings.

To revert to my own installation. Its arrangement was of no great importance, for no one called to see me but friends as impecunious as myself, who filled the room with smoke, heedless of the possible visit of a fastidious client. The postman was infrequent—I often regret that time—and the circular he brought was perused with grateful interest. I consoled myself with the reflection of the great Dr. Morin, " Those who come to see me, do me honour : those who stay away, do me a favour."

At the door of entrance to the practice of our profession we find one great, one unique advantage. While in other callings even those with talent, assiduity, and other qualities which should command success, may have to wait for years an occasion for their employment, the architect's opportunity is available at once. He can always keep his equipment bright by constant use, for most of the great prizes of his profession are thrown open to competition by all. He has, from the outset, the chance of showing what he can do : success depends, with unusual directness, upon his technical ability : and the capital demanded for his enterprise is represented by a few sheets of drawing paper and some wooden strainers. To this opening I naturally turned my attention, and was rewarded with success : it was not long before I had plenty of work.

* * *

As a very old hand, both as competitor and as assessor, I venture a few words of advice to-night concerning competitions. As a means of practical education, the study of a given subject—not for mere academic exercise, but for the purposes of a building to be actually erected at a definite cost under the responsible supervision of the designer—is invaluable : provided that it be followed (in the case of non-success) by its honest comparison with the winning design in order to find the cause of failure. When evolving a design, bear in your mind that a mere solution of the problem offered will not suffice : a competitor must never rest until satisfied that his solution is absolutely the best that can be found ; that there is, so far as he can see, no way of simplifying or improving it. “ The sign of the amateur,” it has been said, “ is his firm belief that small matters need not be attended to : that if he looks after the big things, the little ones will look after themselves ; just as the most obvious and immediate signs of the practical and practised man are his seeming carelessness about large matters, and incessant attention to small ones.” Now a single shortcoming may be the only difference between the first placed and the second. And, should you seem at a standfast, in despair of new ideas, continue drawing nevertheless : there is no surer way of evoking them. However reluctant be the Muse she must yield at last, for the persistence of her suitors is her own inspiration. I add one caution. Keep your design always in your thoughts while it is proceeding : unconscious cerebration produces astonishing results. But, once it is finished and packed, dismiss it wholly from your mind : no amount of further worry will help you, unless you can exert telepathic control over the Assessor.

Most competitions are for public buildings : for these, simplicity of plan is essential, so that strangers may easily apprehend it, and find their way about the building without embarrassment. The working of the human mind, however, inclines to ingenious and complex solutions in the early phases of thought. Mistrust these : concentrate upon and disentangle them, until your plan appears so obvious an arrangement that you wonder why any one should dispose it otherwise. This kind cometh not out but by prayer and fasting, the ruthless rejection of everything that ingeniously evades instead of clearly meeting the issue. Half the difficulties of design arise from your mind being obsessed by some pet architectural feature, around which it is, perhaps quite unconsciously, trying to build up the whole conception. Try cutting out that tower, dome, chimney, or whatever it be that you value so highly : the chances are that the entire composition will then rearrange itself spontaneously, like the glasses of a shaken kaleidoscope. Lose no opportunity of getting a fresh eye to criticise your work. Show it to your friends (unless they be corrivals) and see their work also ; this will, incidentally, enable you to follow Dr. Johnson's advice and “ keep your friendships always in repair.”

It is disheartening to reflect on the labour wasted in nearly all competitions by the preparation of designs which do not comply with the Conditions. This arises from looseness in reading and analysis, a defect so serious in the mind of an architect as to be almost a disqualification for the calling. Conditions should be read, not once nor twice, but continually as your design proceeds : every point being tested by reference to the text, in which “ Answers to Questions ” should be inserted at the proper places. I would add that if “ Conditions ” are properly drawn, but few “ Questions ” should be needed. Numerous questions indicate a slovenly Assessor.

In most cases competitors are required to estimate the cost of their design by stating its contents in cubic feet, and the rate per foot cube at which they value it. It is well to bear in mind that these figures will be checked by the Assessor, and that under-statements in either respect may influence him adversely. It is quite useless to “ cool ” an estimate by pricing a portion of a building at what would be a fair flat rate over the whole, and taking the remainder at a lower figure. Nor does it impress an Assessor favourably to find, as in one case I recall, that a competitor has treated a large Central Hall as being a “ void,” contained between the surrounding blocks, and merely added a small sum to represent its roofing and floor. Such a method of calculation, it is true, reduces the apparent cube, but it also lessens materially the author's prospect of success. It has been my own practice, in drawing the Conditions for recent competitions, to settle the rate to be allowed per cubic foot. It seems to me a better

guide to what is wanted than a limited total sum, which cannot be accurately determined until the building is designed : and it removes the temptation to competitors to price at impossible rates.

Estimates and descriptive reports are, too often, hastily concocted at the last minute. They should, on the contrary, be prepared very carefully *pari passu* with the drawings ; the cube being calculated at every stage in order to control extravagance in plan and section. The description and estimate offer occasion to indicate an author's clear-headedness and methodical character, just as much as the drawings show his artistic qualities.

At one time—the fashion is now infrequent—a competitor's chances were thought to be improved by showing " alternative treatments " of portions of his design, by means of hinged " riders " ; the idea being, apparently, that if the foolish Assessor avoided Charybdis, he should at least come to grief on Scylla. I have, indeed, known three different riders successively superposed upon a plan, which, as you may suppose, offered no more than a choice of evils. I cannot too strongly discourage such a practice. It should not be the aim of a competitor to set riddles to the Assessor, but to convince him that the design before him is the best. How can its author hope to convey such a conviction when he is himself manifestly in doubt ?

* * *

Now, a word as to the final stage, the judging, of a competition. Attempts are often made to estimate the length of an Assessor's foot ; and the guesses are generally wildly wrong. It may help you to win competitions of which I am Assessor if I tell you something of my own methods.

First of all, I make a cursory survey of all the designs, and determine a system of marking. Next—with the Conditions before me—I examine them *seriatim*, and make a sketch of each plan, for I find that this gives me better insight of the author's meaning than I obtain from mere notes, and is very convenient for reference ; it also shows me at once if staircases are impracticable, walls unsupported, or construction defective. I then read the Reports, and give a first marking to every design. Having thus made myself generally familiar with the work submitted, I eliminate those sets which are plainly inferior, and re-mark the remainder, adding or deducting marks as necessary. The reason for this second marking is that, in the course of examining a large number of drawings for the first time, one is apt to vary the standard of values ; a good design coming after a poor one is likely to be over marked, and *vice versa*. By the time the first round is ended this standard has fixed itself pretty definitely.

After the second marking the best designs stand out clearly above the mass. These are taken up for searching analysis, their Reports again read, and the cubic calculations and Estimates checked and tabulated. As a general rule there is little doubt about which design is to be placed first ; those for second and third, still more for third and fourth places, often demand most anxious consideration of their relative merits.

* * *

The enterprise of competition is of inestimable value to those beginning their career : I speak of that great majority in whose mouths no good fairy has placed a silver spoon when they were born. It is the cleanest kind of fighting in the inevitable struggle for a livelihood. No back-stairs influence, no hateful cultivation of acquaintances with an eye upon their pocket-values, avail to increase your prospect of success in such contests. You are independent, and are judged on your work alone. Competition keeps your knowledge from rusting, and increases it ; proves your position among your fellows ; exercises your courage to attack grim labour ; strengthens you to accept disappointment and return hopefully to the conflict, determined to win at last.

Above all, competition inures you to the divine habit of work. " Work—and dreams ; high hopes for the future. There is nothing better than that combination." Glory be to work ! When trouble and distress befall—as certainly they will—it is to work that you shall turn as to a familiar, consoling friend. It shall bring you oblivion of pain, and peaceful good sleep o' nights, heartening you to face your sorrows. The curse of Adam concealed the greatest blessing mankind has ever known.

J. W. S.

VOTE OF THANKS TO THE PRESIDENT.

Sir AMHERST SELBY-BIGGE, Bart., K.C.B., Permanent Secretary of the Board of Education : I have the greatest pleasure in proposing this vote of thanks to the President, though I arrived very late, unfortunately, and benefited by only a small fragment of the Address. I am glad that my own efforts, in the days of my youth, were not submitted to such severe and searching scrutiny as, apparently, is the fate of the young architect. Had they been, I am afraid that the prizes which I obtained in the course of my student career would have been even fewer than they were. I may tell you, in confidence, that the only prize I ever received at school was a prize for dictation. (Laughter.) That, perhaps, indicated that I was going to rise to eminence as a civil servant. The profession of architect seems to me to require an unusual amount of courage. The civil servant is more advantageously placed, for if he makes mistakes, they, like the doctor's mistakes, are buried, though not quite in the same way. (Laughter.) They are buried under a mass of paper. The civil servant, moreover, has the great advantage that if he makes mistakes his Minister takes the blame ; although, on the other hand, if he does very well his Minister takes the credit. For the architect, however, there is no escape at all ; he gets the credit for his good deeds, but he has to take the responsibility for his bad ones. There is no room for repentance for him : when he has once executed his work, there it is on the face of the earth, and nothing can remove it, except fire or earthquake. You can banish the painter to the garret, or give him away as a wedding present. (Laughter.) And even in the case of the sculptor you can organise a convenient riot if his work occupies an offensive position in a public place. But the architect's work must remain ; nothing can get rid of it. The architect, I have noticed, does display a certain modesty : he does not usually sign his works. You may walk round London or any other great town and say, " I wonder who did that ? " either in admiration (Laughter) or perhaps occasionally with another feeling predominant. But you cannot find out who did it unless you go to the records of the Town Council, or the great business houses, or similar places. I remember once, when I was younger, being sent to look at a school, to see whether it was deserving of State support. And one of the things I had to report on was the buildings. I shall not tell you where it was, but it had a large façade facing the street. It had been erected at the expense of a City Company. On the most prominent place on the façade was a large stone tablet, and on it were engraved the names of the Master and Wardens of the Company, and at the bottom, in a corner out of the way, was the architect's name : it was inscribed " FECIT SXOOK." (Laughter.) I am not sure on which side the advantage would lie ; whether it would be more advantage-

ous for the architect to be permanently anonymous, or to be obliged by law to put his signature on his works. Of course I am aware that the architect is often in a very difficult position. I know, for I have employed architects myself. It is not a question of what the architect would like, but of what somebody else likes ; and I am not sure that what I have liked architects to do is what they themselves wanted to do. Everyone thinks he knows something about architecture, about the kind of place he would like to live in : and if he wishes to have green glazed tiles placed on a band on the front of his house, he has got to have them or there will be trouble. And it is difficult, for the young architect at all events, to resist. Of course the experienced architect can tell the person who asks for that to go somewhere else ; and no doubt he does. I cannot rival what the President said in his concluding words. I do not know how many beginners in this Art I am addressing ; but I think I should say, if anybody were to ask me for a word of advice, " Do not surrender your ambitions." I should say very much what the President has said : there is a satisfaction in good work, whether it is recognised, or whether it is not. I know that in my own profession there is very much good work which does not lead to success and which receives no recognition at all. When you have really done good work and you know that you have, there is a great satisfaction in it, whether it brings reward or not. And no one knows better than you do that there is plenty of scope for good work in architecture.

Lady BANISTER FLETCHER : Mr. President. Ladies and Gentlemen, Students. It is a pleasure to second the vote of thanks to the President, and it is an honour to be invited to this position. It is, also, an epoch-making occasion, for I do not imagine that I am asked to do this because of my own personality : rather because I am the outward and visible sign of the welcome that you all have extended to women students in the schools. (Applause.) The President quoted Bacon in praise of young men, but he did not continue the quotation. I, too, can quote Bacon, in praise of older men, and in praise of the President ; for Bacon goes on to say, " Young men are fitter to invent than to judge ; they are fitter for execution than for council ; they are fitter for new projects than for settled business." Those of us who have listened to the President's Address and have heard his considered judgments and wise counsel cannot fail to realise how much students must owe to him. (Hear, hear.) His Address has been a finger-post pointing along the way to success. It has also been a danger-signal, warning you of those many pitfalls to which Sir Amherst Selby-Bigge has referred. But, above all, he himself has trodden the path to success, and to that " settled business " to which Bacon referred. The

President reminds me—if he will forgive me for saying so—of a certain Izaak Walton, who wrote a book on the craft that he practised: and he called that book *The Compleat Angler*. From the President's Address to-night, and from another which I well remember, I am fully convinced that there is no man more competent than he is to write a book which could be called *The Complete Architect*. (Hear, hear.) I feel, however, that the man who would come up to the President's high standard would indeed be a superman: I do not know whether such an one is to be found among the students, whether men or women. I noted the President's warnings, and one struck me very much, because it struck home! He said that "half the difficulties in design arose from the mind being obsessed with a pet architectural feature." What is that obsession? In the language of mental philosophy it is called "an objective association": in common parlance it is an obstruction of ideas, which means that the pet architectural feature, whether a chimney or a dome, has dammed up the flow of your ideas. When I went in for my first B.A. examination in the University of London, one of the questions I was asked was, "What is objective association?" I stared at the paper; my mind was a blank—and the paper remained a blank: but I am quite sure that I learned more from my ignorance than I could ever have learned from my knowledge of the right answer to that question. My knowledge would have been book knowledge: my knowledge afterwards was the knowledge of experience of life, and I was always coming up against that "objective association" to which the President referred. A very curious instance of that occurred to an old friend of mine who was somewhat of an antiquarian and connoisseur. He was looking at what the outside world calls a "period house"—is that a layman's, or a professional expression, Mr. President? He did not find a "period house," but a Jacobean staircase: and then he went on to look for the house to fit the staircase. We chaffed him, and said we should discover that he had found a field and planted the staircase in the middle of it. That was very much an "objective association"! The President went on to give advice as to objectives when you enter for a competition. You must evolve a design: you are to secure simplicity of plan, you are to reject the non-essentials, you are to comply with the conditions—that is most important of all, I imagine, judging by the way the President says he deals with the designs which are submitted (Laughter); you are to estimate the cost, you are to control extravagance—that is asking more than we find in a Government Department (Laughter)—you are to state the contents in cubic feet, and you are to give the value per cubic foot, I think he said. Well, if you have succeeded in giving the correct pass-word to all those seven dragons which guard his gateway to competitions, to which the President referred, you will then be rewarded by the assurance that your work will be judged on its merits. (Laughter.) That is a distinctly hopeful note, and

especially hopeful to women, because we only ask for a fair field and no favour. And as Art knows no sex, we are now assured that the assessor of competitions will know no sex. We only ask for the open door: we have asked for that fair field and no favour, and here, in the architectural schools, you have generously opened that door, and I congratulate you on having done it, and I congratulate the women students on your having done it. You have followed the classical example of Oxford, and what could you do better? You have now, I understand, two women members, and, according to the latest authority, "crowds of women students." I do not see the "crowds" here, but I think I see some here to-night. I remember, some years ago, going to a meeting of the Architectural Association with an old friend of mine, Mr. Seth Smith, when some of my sex tried to force the door. Things became so heated that I expected to hear a demand for Miss Charles's head on a charger! You have changed all that now, and the President hopes for satisfactory results when women's influence begins to be felt, because, he said, women have tidy minds. I cannot help wondering whether, when he said that, he was not thinking of those cupboards which our friend Mr. Paul Waterhouse says women always clamour for when a new house is to be designed. He says we women are always wanting cupboards, with shelves and things. Because, of course, a tidy mind requires a place for everything, and that everything shall be in its place: but you can't have everything in its place if there is no place to put it in. So we are not such culprits as Mr. Waterhouse says we are when we ask for cupboards, and very often we do not find them. When I was passing through the streets of London yesterday, I saw a placard bearing the mystic words "The Woman Peril." That set me thinking. What is "The Woman Peril"? Is it the woman in the jury-box? Is it the woman in Parliament? Is it, possibly, the woman in Whitehall? Can it be the woman at the Telephone Exchange? Or is it the dearth of women servants? Or is it women generally competing with men? I believe that must be the answer. And you have the woman peril here to-night. I am the woman peril! (Laughter) because I have entered into a speaking competition with Sir Amherst Selby-Bigge in tendering a vote of thanks to your President. And women members are the woman peril, and the women students are the woman peril, only you have decided not to regard them as perils, but to receive them as pals. And that seems to be the solution of the whole matter. If only that could be the point of view of mankind and womankind generally, we should get along much better, and have much less friction. Having settled the question of the woman peril, we come to the question of the prizes. The proposer told us he only received one prize at school, and that was for dictation. I can go one better, because I never received a prize at all. Of course, those who receive prizes receive also congratulations. But I would have you note that those who

do not receive prizes receive sympathy, and that goes a long way in helping them in the future. Of course, we must assume that the prize is a sign of success; but not to receive a prize is not by any means a sign of failure: the failures of this year may be—probably will be—the successes of next year, and those who have been “counted out” this year may be “counted in” next year. Now as to why I never received a prize. The Principal of my old school, Miss Beale, of The Ladies’ College, Cheltenham, regarded prizes as false standards of success, and would have none of them. So when my brothers came home at the end of the term bringing their spoils with them and I had none, I naturally looked with envy on their loot. But I tried to feel very superior as to our system. That is why I never received a prize. But I am among the prize-winners to-night. A great deal of time, since I left school, I have spent in trying to break down those barriers which excluded women from the full opportunities of citizenship. I have asked for the vote for women—asked for it peacefully—in order that they might have full freedom. Women have now received that vote: they have full freedom to come to your schools, and do anything else that they are capable of doing. They have full freedom to learn and to work and to earn, and full freedom to fail and to succeed. So I have my prize to-night. But, whatever you may think of the competition of my sex, I am sure that you will all agree with me and join with me and support me in my seconding of this vote of thanks to your President, who comes here to-night not only with his President’s Badge, but, I am sure, also with the Philosopher’s Stone. (Much applause.)

The vote having been put to the Meeting by Mr. A. W. S. Cress, Vice-President, was carried by acclamation.

The PRESIDENT: Ladies and Gentlemen, I thank you very much for the way in which you have received this vote and the far too flattering remarks of Sir

Amherst Selby-Bigge and Lady Fletcher. Fortunately, I have lived long enough to know myself pretty well and am able to estimate about how much I ought to accept of their kindly flattery. Sir Amherst spoke of the great modesty of architects: there, I think we are at one with him: we are an extremely modest race, but it is not always recognised. (Laughter.) I believe Sir Amherst has taken a great many prizes in his time, but I was delighted to hear him confess to the subject of that which he took in his school-days. The exercise of “dictation” was most proper to one destined to the Civil Service (Laughter), and his early success in that art was prophetic of his distinguished future. We hear a good deal about the dictation of civil servants at the present time (Laughter), and wish it were always exercised in the beneficent and tactful moderation with which Sir Amherst wields his great powers. To Lady Banister Fletcher I have to offer especial thanks for the kindness and courage with which she has come here to second the vote of thanks. She has, if I may put it so, taken a prize for herself—it is a very small prize, but I do offer it to her in all sincerity—she is the first lady who has ever spoken officially at a meeting in this room. (Applause.) We hope that her great success to-night may be often repeated by other ladies. She appears to me to have only one weakness, that curious feminine obsession for cupboards! It is common to the sex: you cannot eradicate it. Cupboards are excellent things in their right place, but ladies want them everywhere. And I would just like to point this out with regard to cupboards: cupboards are generally signs of a bad plan, put in to fill up odd corners which you cannot plan out. If a building is closely and well designed, there is precious little room for odd cupboards. (Laughter.) But, if the requirements are thought out from the first, the cupboards which Lady Banister Fletcher desires form an essential part of the design, and will be found, not in odd corners, but in their proper places.

REVIEW OF THE WORKS SUBMITTED FOR THE PRIZES AND STUDENTSHIPS 1921.

By H. P. BURKE DOWNING, F.S.A. [F].

Read before the Royal Institute of British Architects, Monday, 31st January 1921.

MR. PRESIDENT, LADIES AND GENTLEMEN.—I have the privilege on this occasion to offer you my observations on the work submitted in this year’s competitions for the Institute Prizes, but before proceeding with my review I desire first to thank you, Mr. President, for the honour you have conferred on me in requesting me to assume this office, in which so many distinguished architects have been my predecessors. If I confess that at the present moment I am not less sensible of the burden than of the honour I shall perhaps be revealing no secret and I do so only to crave the indulgence of my audience for the decision that I fear they may observe from the high standard of the addresses to which they have had the good fortune to listen in other years.

The work of reviewing has been lessened by the fact that the SOANE MEDALLION FOR DESIGN and the PUGIN TRAVELLING STUDENTSHIP have not fallen to be competed for this year, and, further, the OWEN JONES TRAVELLING STUDENTSHIP and the HENRY SAXON SNELL PRIZE have not attracted any competitors. Unfortunately also, the number of entries for some of the other Prizes has been small.

The GODWIN BURSARY for the study of Modern Architecture abroad has been awarded to the single competitor (Mr. C. B. Pearson) for a collection of drawings showing that he has done much good work in the practice of his profession since he obtained a Medal of Merit in the Tite Competition of 1906.

There were also only two entries for the ESSAY PRIZE (not awarded), and only one entry for the GRISSELL GOLD MEDAL (also not awarded). For the INSTITUTE SILVER MEDAL for Measured Drawings there were four competitors, and for the TITE PRIZE eleven.

If these numbers ought to be taken as showing any falling off in the keenness of younger members of the profession to take part in these competitions it would, I am sure, be very much to be regretted, for it is hardly possible to exaggerate the stimulating effect of such competitions. They give the opportunity to students to put forth their full powers in carrying to completion a definite and difficult piece of work. The effort may reveal to themselves the possession of powers which, untried, might lie dormant. The trial will give them reliance on their powers and courage to meet and overcome the novel difficulties which they will experience when they have left the schools behind them and are embarked upon the responsible practice of their profession. It is good, too, for the schools themselves that the products of their training should be subjected to these external tests.

But I think there are other reasons than any loss of keenness to account for the paucity of numbers of competitors. The pursuit of the peaceful arts has suffered a long interruption, and, after the violence of war has ceased, it has not been easy again to take up the thread of studies laid aside to answer the call of the country's need and to induce once more the calmness necessary to their successful prosecution. I think we may in this find the explanation of the small number of students who have been able to give to those competitions the time and labour which they require, and we may rather feel some thankful surprise that so much excellent work has been done as, especially in connection with the Tite Prize, I shall have to record.

Some general impressions are necessarily borne in upon one in examining the exhibition of works as a whole. In bulk it is, for such reasons as I have given, a small exhibition as compared with other years, and, recalling the exhibitions of twenty or twenty-five years ago, I observe very clearly the increasing influence of the architectural schools. If from this influence there is some danger of restraint of individuality, the schools have undoubtedly brought about a raising of the general level of work: there is less inequality of performance—very little absolutely poor work—and for this all praise is due to the schools. Nevertheless one misses, especially in the draughtmanship, a certain freedom of individual method which was a product of the times before the academic influence had become so strong. It is significant that there are no drawings of mediæval work in the Exhibition. This is not, however, to suggest that there is not excellent draughtsmanship. There is—even when it is joined with design marked by absence of inspiration—but it is not of the order that plainly exhibits qualities or character rather than the training of the draughtsman.

While Drawing is obviously taught so well and with such excellent results in the schools, it is a little unexpected that one should find so few students desirous of competing for the only prize offered for Construction, a subject not less necessary nor, one would have said, less suitable to engage the attention of the schools. It may be that it is not so easy to draw out enthusiasm for this branch of the complex art of architecture, but excellence of draughtsmanship can be no substitute for knowledge of Construction: true design cannot proceed from the one without the other, and it is very necessary that equal means and opportunity should be afforded in the schools for the study of both.

The GRISSELL GOLD MEDAL is the unique competition in a Constructional subject, and unhappily it has not been possible for the prize to be awarded, although the sole competitor ("The Villain") sent

in a good set of drawings. The subject set was a kinema, and the competitor's design is of quiet and appropriate character and the practical requirements of the plan are well considered. It has, however, been fatal to his aspirations that his structural diagrams are—I am informed, for I do not attempt independently to criticise the steel work details—inaccurate. I think he deserves some credit for attempting a subject which, perhaps, would not be inspiring to many of us. That is not necessarily so with Construction. I recall very keen competition inspired in former years by such subjects as the construction of “a Timber Spire” or “a Bay of a Vaulted Church.” But the mastery of the constructional problem, though it be met in more prosaic surroundings, should be in itself of no less absorbing interest. With modern needs and modern methods it is, in fact, daily more necessary that students should be taught to master structural mechanics and not to regard such matters as a branch of their art for which they can rely upon the engineer. The mastery of Construction is necessary to Design.

THE ESSAY MEDAL.

In a second Competition also—that for the ESSAY MEDAL—no award is made, although there are two competitors. I have not been able to apply to the two essays that careful examination which they have received at the hands of the judges, but I think that, as seems to be the case with many competitors for this prize from year to year, “Egypt” and “Lucem spero” rather fail to appreciate what is wanted. An essay of this character is not intended to be in the form of materials for a book. It should be complete in itself and fully develop, while it illustrates, some thesis: it needs to lead up to some conclusion which—as is expressed in the conditions of the competition—will make a useful contribution to knowledge and constitute an authoritative statement on the subjects dealt with. “Egypt” could hardly expect to be authoritative on the whole history of Egyptian Architecture, more especially as he adopts creation as a necessary starting point. He has diligently extracted a number of facts which should help him to the understanding of any discovery he may hereafter make, but the reader must derive for himself, if he can, any contribution to knowledge of the subject.

“Lucem spero” has chosen a technical subject—“Domes, their construction in theory and practice”—and has indeed put a great deal of work into it, but it is rather the groundwork upon which he might have formulated some authoritative statement as a contribution to the knowledge of the subject. Both essayists are too closely tied to the material which they have collected from their reading.

THE MEASURED DRAWINGS MEDAL.

There are only four entries for this prize, but the competition is close, each competitor having produced what is a valuable record of some building of Classic or Renaissance architecture, and the work is good and conscientious. But many of the drawings suffer from a rather mechanical and laborious manner; survey notes and plottings are involved and do not evidence sufficient care nor a very intelligent appreciation of the subjects. We expect to find fine draughtsmanship in these studies and it should express the character of the buildings and be the outcome of the student's enthusiasm for and sympathy with the subject. That there should be a marked falling off in the study, by drawing and measurement, of old work is much to be regretted, and for a revival of enthusiasm I would commend to the attention of students especially our English traditional work, little as it may now be in fashion.

The Medal this year goes to Mr. J. H. Odom (“Ajax”) for a survey of King Charles's Block of Greenwich Hospital. His drawings form a very complete and interesting record of a fine building. They are accurate and painstaking, but they seem to me to be deficient in the quality of sympathy.

Mr. Leckenby (“Sapper”), who receives Honourable Mention for his fine monograph of the “Temple of Bacchus at Baalbec,” presses the winner very closely. The drawings are most beautiful and were completed on the spot—clean, well arranged on the sheets, and the lettering is excellent. As records, the fact that they are in pencil is a drawback. The rendering of full sizes and carving shows much feeling and a marvellous delicacy. The subject is a purely classic one, and comparatively small.

and it is unfortunate that Mr. Leckenby was not able to produce his plottings. "Ralph Allen" submits a capable set of shaded drawings of the well-known 18th century mansion of Prior's Park, Bath. He gives especially good drawings of the interior, but the plottings and survey notes are inadequate and scarcely show that he has explored all the qualities of the building.

The drawings of "St. Mary Woolnoth," by "Triangle," are a little unequal and blemished by somewhat careless lettering, but present a complete and reliable record of Nicholas Hawksmore's fine church, whose "doom" we may hope is not yet finally pronounced.

THE TITE PRIZE.

The subject for this prize is a design for an Italian Villa, inspired by Pliny's description in a letter to Gallus, not to be regarded as an archaeological exercise but as an inspiration for a building on similar lines. This most happily chosen subject has proved in truth an inspiration of good work and designs of great merit and exceptional interest, while the winning design has hardly been surpassed in brilliant imagination and scholarly rendering in this competition for many years. So beautifully, indeed, is the description of the place, its arrangements and surroundings, given by Pliny that even to a layman a picture is presented which he seems to realise with certainty: perhaps, indeed, its realisation seems more easy to the layman than to the architect who has to attempt it, and finds very soon the gaps, which must be filled by his own imagination, notwithstanding the apparent completeness of every detail. The subject was one to emphasize the importance of the competitors most carefully weighing the whole of the instructions given them with a view to seizing and holding the main idea of the scheme. Everything is described in language of modesty and restraint, which, while it rules out grandiose treatment, perhaps in some measure conceals the fact that the house which is being described is that of no commonplace citizen, but the chosen home of a statesman in literary retreat. It is revealed at every turn that it is the ideal of a man of the most refined taste and elegant learning.

The schemes of some of the competitors are of too ambitious a character, showing indeed a great deal of zeal and painstaking industry, but evidence of recourse to text books and not enough of individuality and power of design. A free combination and adaptation of Italian Renaissance work has been favoured. In drawing, the work is generally good, but suffers from dullness and is sometimes spoiled by laborious and not always well applied spraying and grounding, which does not help. These drawings clearly come mainly from one school, but hardly do justice to the school. Though academic they are immature.

It is not necessary for me to make observations in detail on all the designs. There is a certain similarity in character and treatment about those of "Anzac," "Arc," "Gallus," and "Gondola," but they are not equal to the demands which the subject makes and they lack finish. The attempt of "Gallus I." is interesting from obvious youthfulness. He has worked seriously, but the task was too big for him, and he needs the training of the schools. "Isobel's" plan is better, but rather congested and ill-lit, and his proportion is heavy: the details are well-drawn and coloured. In the work of "Blue Seal" there is promise, but his design, showing a building rising sheer out of the water, is rather fortress-like and hardly inspired by Pliny's description. "Sea-less" sends some really good drawings of much simple dignity. His perspective, softly and charmingly coloured, is worthy of a place among the best, and there is much good and true feeling in his work. His design, however, is rather out of scale and the parts are not well balanced.

Drawings of a particularly pleasing and unaffected character are submitted by "Red Seal," who comes very close to the second place. His plan is frankly on modern lines, and his rendering of the Florentine Renaissance type shows much character. He realises that a sunlit building can be designed in broad masses, and his breadth of plain wall surfaces and the grouping of the elevation are very fine. The slight sketch perspective does not do justice to the design, or rather, I fear, it demonstrates that the view has not the fine effect that the elevation shows. The detail is delightfully simple and of good character, the arcade having a graceful severity. It is altogether refreshing to come upon a design

which embodies in so full a degree the spirit of the author, who clearly will succeed in giving, as surely he receives, great enjoyment by his work.

Mr. Paton, of Glasgow, has well deserved the Certificate of Honourable Mention for his arresting and very successful Italian composition. There is a suave severity about the design, and the beauty of his drawings (somewhat overdone with black spraying) proves him an artist of considerable merit. The combined $\frac{1}{2}$ inch detail and perspective is a very fine drawing—sunny and radiant of charm. The plan is excellent and hangs well together. The principal elevation, with its two simple towers well placed at the entrance to the great courtyard, and the coloured frieze over the arcade are characteristic and happy. The drawings, however, though very full, give the minimum of information. The position of the towers might have been accentuated on the plan, and there is no upper floor plan.

There remains the design of the winner of the competition, which will by universal consent be proclaimed the finest piece of work of the year, and sufficient of itself to make the year a notable one had it stood alone. The successful competitor is Mr. Gordon Holt, of London. It is clear that he has felt to the full the inspiration of Pliny's description: the seed has fallen upon prepared ground. He takes us right back to the first century, in which Pliny was writing, and gives us a Roman villa even more complete with all its adjuncts than Pliny's description extends to. The situation of his villa might be precisely that which Pliny saw when writing—above the cliffs of a sunny sea coast and overlooking a small pleasure harbour, down to which flights of steps lead from the terrace on the sea front. On the land side the lay-out of the gardens in the grand manner with the clear and direct approaches gives a fine effect of spaciousness and dignity which does not need to assert itself, and this characterises the whole conception. Mr. Holt has adopted the style of the earlier Pompeiian houses, which was much influenced by Greek feeling, and the long low lines of his buildings give a character of unpretending dignity to which higher and more elaborate structures do not attain. The Græco-Egyptian detail and decoration have been well studied. It is harmonious, if the colouring seems a little too strongly applied for small scale drawings. The greatness of this design is in the conception of the whole, which is moreover worked out with a completeness which would make criticism of the details a work of much longer time than I should dare to occupy on this occasion. I prefer to express my admiration of the whole and of every part. Closely as Mr. Holt has followed the description of Pliny's letter, he has not allowed himself merely to be instructed by it. It has served as an inspiration, but the conception is his own and marked by his own personality. He must have lived in the work as it has grown under his hands, and he has enabled us to enter into the enjoyment which his task has clearly afforded him. The plans give a sense of absolute reality carried out, even in the delineation of the galleys in the harbour and the chariots in the stables.

By singular good fortune we have this evening an opportunity of viewing side by side Mr. Holt's ideal conception with Mr. Bradshaw's beautiful drawings of his archaeological reconstruction of Praeneste—near to which, by the way, it is recorded that the younger Pliny had a villa.

I cannot bring my observations to a close without drawing attention to the great artistic ability shown in Mr. Holt's drawings. They are executed in the manner of the School of the Architectural Association, and a high tribute is due to the unsurpassed training of the School of the Association, for which I and so many of those here present must ever retain a loyal affection.

COMMON SENSE IN BUILDING CONSTRUCTION.

By P. J. WALDRAM, *Licentiate*, Hon. Examiner in Mechanics of Building.

THE present difficult times would scarcely appear to offer much scope for notable advances in architecture. Whilst on the one hand severe economic stringency threatens to curtail building almost to the point of extinction, on the other hand abnormally high prices call for the most extreme and cheeseparing economy. Yet it is no time for the architect to sit down helplessly and hope for better and easier times. Rather is it a unique opportunity for him to seek inspiration from the bracing winds of this winter of our discontent. At some future time, and that perhaps not so very far distant, it may well happen that we shall look back with no small thankfulness to our present difficulties; recognising in them the only influence powerful enough to loosen the bonds of false tradition by which we have too long been fettered.

The last decade before the War witnessed a notable improvement in the standard of public taste. It saw many of the grosser excrescences killed by the example of purer and simpler work. Florid stone capitals on brick window mullions were no longer *de rigueur* in the suburban villa; but *appliqué* timber and artificial rusticity were still rampant; and speculating builders were not the only offenders. But the silent influence of better work could make but slow headway in competition with the vast mass of erected bad design which tended to stereotype objectionable features. Already a few months of enforced economy have done more good than precept and example could probably have effected in as many years.

With materials and labour at famine prices, nothing can now be afforded beyond what is absolutely necessary. False and artificial ornament has been the first thing to go, and small house design, at least, is the cleaner and purer for it.

Three hundred years ago, when labour, materials and transport were relatively almost as costly as they are to-day, buildings were designed and erected on strictly utilitarian lines. Local materials were used sensibly and economically to achieve definite results. Structural members were straightforward and obvious. Everything had a definite task to perform, and never pretended to be anything but what it was. Then came the Renaissance, when building and architecture became the fashionable aristocratic pastime. Its triumphs were great, and a rich and splendid inheritance has come down to us in the fine dignity of its stonework, the ineffable charm of its delicate ornament, and the inspiring craftsmanship of its furniture. But what horrid evils of pretence, snobbery and sham followed in its train. Not the least of these was the contempt of everything honest and natural in building, so that elaborate and unnatural artifices took the place of single-minded construction, and copying replaced art.

Then followed the manufacture and canonisation of innumerable pseudo-scientific rules and formulæ based on the shallow, slipshod reasoning which passed for science in that age of pretence; and the birthright of well-developed structural craftsmanship was allowed to decay. To this day we are still the slaves of formulæ, rules and bye-laws. We may grumble a little at them occasionally, but without them we are lost. Our forefathers, when in structural difficulties, made and tested models and sample members. We search through text books and pin our faith to anything which has the sacred authority of printers' ink, and mistrust everything which has not. The results would not be so bad had the writers of text books and the compilers of bye-laws copied less faithfully earlier volumes, back to the time when it was possible to achieve opulence and fame by quoting the half-baked theories and muddled mathematics of some rich or aristocratic patron.

If the present difficulties offer exceptional opportunities to designers who know how to achieve charm without meretricious ornament, surely they offer also some inducement to those who can effect material economies in cost without sacrificing efficiency. The scope for such work is indeed large, and it requires but little more than the exercise of thought and common sense. There is scarcely any feature of small house building which has not been unreasonably increased in cost by the operation of paper rules and false formulæ. In almost every direction economies of striking dimensions would be possible were we but free from bye-laws and able to go back to the common sense in construction which went out of active business with the Stuarts. But the heavy yoke of bye-laws has already been lifted by the force of economic stringency, and the officials of the Ministry of Health are prepared to allow any reasonable form of building. It only remains for architects to free themselves from the tyranny of their text books, to give their common sense full play, and to design according to the known principles of structural mechanics, rather than to the dicta of the pundits; and, when in doubt, to make tests.

Take for example the very ordinary matter of cottage or small house floors, upon which hundreds of thousands of pounds are being spent. Anyone who has ever tested a wooden beam to destruction, or even broken a stick across his knee, can appreciate that bye-law and text-book sizes must be based on stiffness and not on strength if the usual limit of deflection of $\frac{1}{360}$ of the span is adhered to: because no wood joist would be approaching its safe load until it had exceeded enormously this limit of deflection. We are, therefore, invariably putting in timber mainly to protect our plaster ceilings. Why? Because three hundred years ago fashion decreed that all genteel ceilings must be

flat, in the Italian style. Why should every cottage and suburban villa be forced to lose air space in order to provide that filthy receptacle for decayed soapsuds, dust and vermin between a ceiling and the floor above? Probably, however, most people have by now become accustomed to a certain degree of stiffness in floors, and would be frightened if they had less. But even so, common-sense design can save enormously. Fig. 1 shows a "Bye-Law" floor over a 12 ft. span. Figs. 2

The 7 by 2½ timbers of which they consisted were about the worst of a consignment apparently only fit for bad firewood; knots 1½ in. diameter traversed the edges, whilst shakes, waness and discoloured green sapwood were only too obvious. The only precaution taken was to see that the worse defects "broke joint" before they were nailed together. This precaution—practically the sawing and reversing of the old builders—proved to be quite sufficient to enable the tim-

BEAMED COTTAGE FLOORS

SPECIFICATION—All to be as stiff as 2" x 16" centres 1'0" span. Main beams carry half loading of single joists

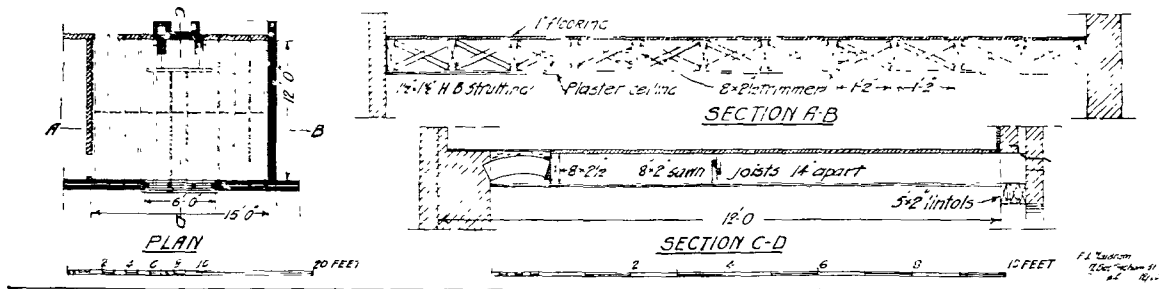


FIG. 1

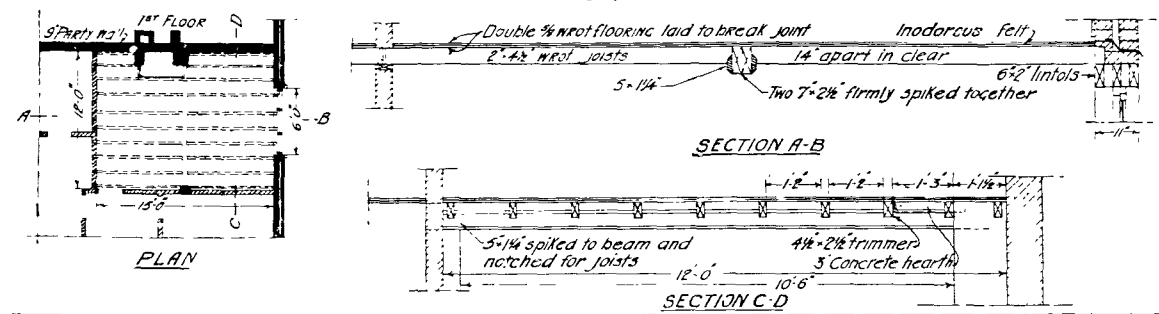


FIG. 2

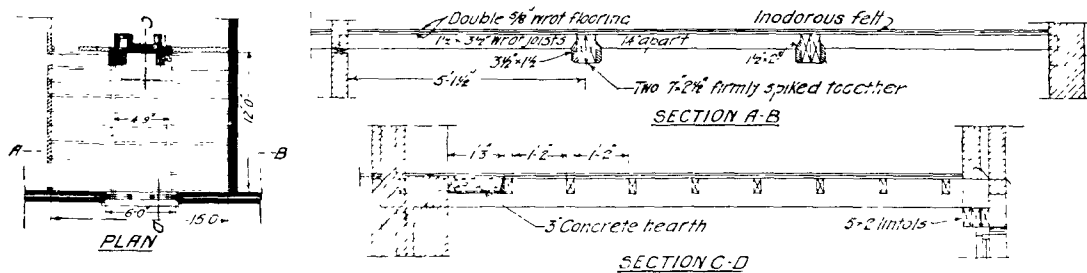


FIG. 3

and 3 show a similar floor redesigned to the same degree of stiffness with 30 per cent. less cube of timber. This is not an exceptional case: the writer has effected much larger savings in cases which the "Bye-Law" schedule hits badly—spans of 11 ft. 3 in. for instance.

As regards the strength of the main beams shown, the writer had occasion to test to destruction, officially, a pair of such beams, 12 ft. span. They required no less than 11½ tons of distributed load to break them.

ber to develop a fibre stress of 5,500 lb. per square inch and an elastic modulus of 1,600,000 lb.

As a comparative test of stiffness and sound proofing a pair of houses was built, one with flat ceiled floors and the other with the floors beamed and covered with felted double 3 in. boards substantially as shown. The writer, after energetically jumping on both floors, and then standing below whilst an assistant—selected for weight and lung power—danced and sang on the floor

above, was frankly unable to detect any difference between the two floors. Even if there had been, a saving of 30 per cent. of timber at 12s. to 15s. per foot cube, of lath and plaster ceiling at 6s. or 7s. per yard, to say nothing of H.B. strutting and some inches of precious headroom, would at least be worth considering over the hundreds of floors in even a single housing scheme.

Take again the matter of wood roofs. How often are these calculated? Hitherto we have been compelled by rigid bye-laws to use for all combinations of pitch and weight of covering the scantlings which are quite safe for the most punishing conditions. Rafters and purlins had to be the same whether they were carrying slates, plain tiles or pantiles.

Even when working under bye-laws it was possible to effect economies by exercising a little care—not, for instance, putting in a 4 by 3 where a 5 by 2 would do, &c. Now that Housing Commissioners are prepared to interpret reasonably the Ministry of Health specification, the difference between careful and careless specifying of roof scantlings is extraordinary.

Roof trusses, although they are not required, and are seldom specified, for small houses, have in the past been responsible for an enormous waste of material and labour. The writer found healthy evening exercise for some weeks in sawing up for firewood a *portion* of the tie-beam of a 22 ft. span truss removed from a fairly modern city building. As soon as a span exceeds 20 ft. there appears to be an irresistible temptation to specify a kingpost truss. A text book is consulted, and something plagiarised from Tredgold is copied—a veritable orgy of wasted material and unnecessary labour. A truss built up of 1½ in. or 1½ in. timbers bolted or even spiked together, without any of the elaborate tenons, shoulders, straps, collars, keys, &c., can be quite equally efficient. It will require less than half the quantity of timber, and can be made if necessary by unskilled labour. It is no exaggeration to say that from the average designs for wood roofs submitted for approval or subsidy 30 to 50 per cent. of the cost in labour and material could be saved by more carefully thought-out design, without the slightest sacrifice of efficiency or strength.

In foundations, too, we are still adhering to the traditions of Italian construction by invariably putting in the continuous-footing foundations required for stone walls on "faulty" volcanic sub-soils. Our forefathers used their common sense, and, recognising that in our soft soils the most reliable foundation is a pile, they

used stout hardwood corner timbers, and framed from them.

Why should not we design similarly? With a modern posthole digger a hole, say, of 9 inches diameter and 4 feet deep can be dug in a few minutes. Such a hole filled with concrete forms a most excellent pile. If pairs of such piles be spaced in the run of the walls and the site concrete extended over them, thickened and reinforced, a foundation is obtained which will more than meet the requirements of a small house (which never reaches a load of a ton per foot run), and effect a material saving on trench-digging, concrete and footings, especially where ground slopes or clay would otherwise demand deep trenches. Foundations bulk largely in the total cost of small houses.

The foregoing are merely examples. There is scarcely any branch of the building industry where waste has not accumulated under the aegis of the law that "everything must be the best of its respective kind." Even our sacred sanitary rules are full of anomalies. What we allow in fever hospitals we forbid in cottages, yet permit in flats. How many drains are pointed in cement and surrounded in concrete, but laid to fall so steep or so flat that periodical choking is inevitable?

If any branch of constructive work could be considered as stereotyped and exact it would surely be steel frame design under the London Building Act, using standard rolled sections. Yet even in this it is quite possible to satisfy exactly the very precise requirements of the Act by different designs for almost every member, each involving the full permissible stresses, but varying in weight by 50 to 60 per cent., or even as much as 100 per cent. The selection of the most economical combination takes time, yet the general practice hitherto has been to ask for designs from busy firms whose main business it is to sell steel. This, doubtless, saves a lot of trouble; but with steel at its present price the maximum economy must be found or the whole contract may be imperilled.

Look in what direction we will, everywhere we see the same prospect. All the old customs, restrictions, rules, bye-laws and prejudices which hitherto have guided but also fettered us are held suspended. Never had designers so much freedom, never had clients so little to spend, never were buildings wanted more. The designer's difficulties may never have been so great, but his opportunities were never so unlimited. It is the time for action, not despondency. In housing, at least, whatever opportunities architects neglect will speedily be seized by speculating builders.

THE LIBRARY.

Notes by Members of the Literature Committee on Recent Purchases.

[These notes are published without prejudice to a further and more detailed criticism.]

THE GRANDEUR THAT WAS ROME: A Survey of Roman Culture and Civilisation. By J. C. Stobart. M.A. 2nd ed. La. So. Lond. 1920. 50s. [Sidgwick and Jackson, Ltd., 3 Adam Street, Adelphi.]

This volume, now in its second edition, is, as the Preface says, a continuation of "The Glory that was Greece." It is written with the same purpose and from the same point of view. The point of view is that of humanity and the progress of civilisation; and the object is to give a general and vivid picture of ancient Roman culture. The result is an extremely interesting survey of Rome, its history, life, institutions, and arts, as one connected and illuminating story both in Republican and Imperial days. Since architecture is the great interpreter of civilisation, and as architects are, or should be, the exponents of it in their own day and time, such a book is informing. It provides a necessary connecting link between Roman art and Roman institutions, and makes the dry bones of archaeology alive.

PERCIER ET FONTAINE (Les Grands Artistes: Leur Vie—Leur Œuvre). Par Maurice Fouché, Professeur agrégé de l'Université. Biographie critique illustrée de 24 reproductions hors texte. So. Paris [*n.l.*] 3s. 6d. [Librairie Renouard, Henri Laurens, 6 rue de Tournon, Paris (VIe).]

CATALOGUE OF A COLLECTION OF EARLY DRAWINGS AND PICTURES OF LONDON, with some contemporary furniture. 40, Lond. 1920. £3 3s. Privately printed for the Burlington Fine Arts Club. 48 plates with descriptive letterpress.

This is a record of the delightful exhibition of contemporary drawings of Old London arranged by the Burlington Fine Arts Club last year. Though colour is unfortunately absent, it brings to the notice of the many what was appreciated at the time by the few. Eight drawings were lent by the King, including the two fine Canalettos of "Old Westminster Bridge" and "Westminster Bridge and Abbey." All the drawings have charm, some of them to a very great degree, and the names of Wilson, Constable, Turner, Hollar, Sandby, Hogarth, and Gainsborough appear with many other artists. Apart from their intrinsic value as drawings they are valuable records of a London that has partly disappeared, though its substantial qualities, happily, still exist for the most part. Mr. Philip Norman writes a preface; and the other names on the committee, with his, are a sufficient guarantee of the excellence of the letterpress.

WOHNRAUME UND DIELEN AUS ALT-SCHLESWIG-HOLSTEIN UND LÜBECK. Mit einer Einleitung über Nord-Elbische Wohnungskunst. Von Professor Dr. G. Brandt, Direktor des Thaulow-Museum, Kiel. Portfolio. 40 plates. £1 12s.

A series of forty well-reproduced photographs of typical interiors from Schleswig-Holstein and the territory of Lübeck, ranging from the sixteenth to the close of the eighteenth century, mostly panelled, and containing many examples of ancient furniture. The local style evidently came under Dutch, Scandinavian, and French as well as German influences.

TECHNICAL DICTIONARY IN SIX LANGUAGES. Vol. XIII of the Schlomann-Oldenbourg Series; Constructional Building (Above and Under Ground). Sm. So. Lond. 32s. [Constable and Co., Ltd., 10-12 Orange Street, Leicester Square, W.C.]

This useful volume has been compiled by an international body of experts, and gives equivalent translations in English, French, German, Italian, Spanish and Russian for words and phrases in use by the architect and builder. Its 2,600 small but careful illustrations are of help in defining visually the exact word under investigation. Examination shows its thoroughness of execution on the whole, though, as might be expected with a work of the kind, an omission or two are to be noted. Thus the word "quirk" only appears as the mason's float-quirk, and not as the re-entering portion of wood or stone on each side of a bead or astragal. "Air-brick" is translated *brique non coute*, and not *brique à ventilateur*. "Rising-butts" (*gonds montants à vis* or *Angeln mit Schraube zur Erhöhung*) do not appear, nor "Puddle" (*revêtement de terre glaise* or *Dammbekleidung*). Still, allowing for an occasional omission in a book of some 60,000 to 70,000 entries, the work will be of great help to architects to whom it falls to translate into or from any of the languages with which it deals.

SKETCHES AND DESIGNS BY STANFORD WHITE.

With an outline of his career by his son Laurence Grant White. fo. New York 1920. £5 12s. [Architectural Book-publishing Co., 31 East 12th Street, New York.]

This handsome folio contains reproductions of Mr. Stanford White's masterly sketches of the old world. The remaining full-page illustrations deal mostly with minor works and interiors, which are of great variety and beauty, while some of the more important works are shown in inset blocks in the text.

A MANUAL OF THE TIMBERS OF THE WORLD:

Their Characteristics and Uses. By Alexander L. Howard. To which is appended an Account, by S. Fitzgerald, of the Artificial Seasoning of Timber. With upwards of 100 illustrations. So. Lond. 1920. 30s. net. [Macmillan and Co., Ltd., St. Martin's Street.]

A work of reference of much utility, and especially its main portion, a full and detailed list of all available timbers, their origin and characteristics. No fewer than twenty-four descriptions of oak, for instance, are noted. There is a special consideration (by Mr. S. Fitzgerald) of the debatable point as to the merits of those systems of artificial seasoning which the urgency of war conditions made a necessity to the user, and of which the author's experience leads him to be an advocate.

SPON'S PRACTICAL BUILDER'S POCKET BOOK. A

reference book of memoranda for Architects and Builders. Edited by Clyde Young, F.R.I.B.A. 3rd edit. Sm. So. Lond. 1921. 10s. 6d.

NOTES ON BUILDING CONSTRUCTION. Parts III and IV. (Rivington Series.) Arranged to meet the Requirements of the Syllabus of the Board of Education, South Kensington. Part III (32s. 6d.), Part IV (15s.). So. Lond. 1919. [Longmans, Green and Co., 39 Paternoster Row.]

A revised edition, Part III dealing with Materials and Part IV with Calculations for Building Structures. Con-

tains the results of the most recent research, and compares well with the previous editions of this valuable series. Will be reviewed in full later.

THE ARCHITECTURE AND DECORATION OF ROBERT ADAM AND SIR JOHN SOANE, R.A. (1758-1837). By Arthur T. Bolton, F.R.I.B.A. With 21 illustrations. Royal Society of Arts' Cantor Lectures. 8s. Lond. 2s. 6d.

No one has made so complete a study of the work of Adam and Soane or has had such opportunities of making it exhaustive as Mr. Bolton. The results here set forth in so scholarly a manner and with such sympathy are full of interest and valuable instruction. The illustrations are for the most part of unhackneyed subjects.

ARCHITECTURAL DRAWING AND LETTERING.

Drawing, by Frank A. Bourne and H. V. von Holst : Lettering, by Frank Chouteau Brown. 8s. Chicago 1920. 9s. [American Technical Society, Chicago.]

An American book, containing full suggestions for the presentation of buildings both in drawings for exhibition and working drawings. The very clear method used by the best American architects for showing all essential parts of a building in pure line is well explained and illustrated, and there are useful sections on rendering, shading, the draughtsman's materials and the like. The latter part of the book, on lettering, gives some good and some less distinguished examples of alphabets and a clear analysis of the formation of letters.

MAN AND HIS BUILDINGS. By T. S. Attlee, M.A. [A.J.] 8s. Lond. [n.d.] 6s. [The Swarthmore Press, Ltd., 72 Oxford Street, W.1.]

MODERN ROADS. By H. Percy Boulnois, M.Inst.C.E., etc., etc. 8s. Lond. 1919. 16s. [Edward Arnold.]

This is a very valuable book of about 300 pages on the construction and repair of all types of roads and streets by a first-rate authority on the subject.

LOCKWOOD'S BUILDER'S, ARCHITECT'S, CONTRACTOR'S AND ENGINEER'S PRICE BOOK FOR 1921. Edited by R. Stephen Aylm, F.R.I.B.A. With a supplement containing the London Building Acts, 1894-1909. With Diagrams. 8s. Lond. 1921. 7s. 6d. [Crosby Lockwood and Son, 7 Stationers' Hall Court, Ludgate Hill, E.C.]

REVIEWS.

INDUSTRIAL HOUSING IN AMERICA.

Industrial Housing—With Discussion of Accompanying Activities: such as Town Planning—Street Systems—Development of Utility Services—and Related Engineering and Construction Features. By Morris Knowles, sometime Supervising Engineer, Camp Meade, Maryland, and Camp McChattan, Alabama, and Chief Engineer, Division of Passenger Transportation and Housing, Emergency Fleet Corporation, United States Shipping Board. Member American Institute Consulting Engineers, etc. 30s. net. (McGraw-Hill Book Co., Inc., 239, West 39th Street, New York; 6 and 8, Bowditch Street, London.)

"The Horrors of Peace"—to quote Mr. G. K. Chesterton—include the solution of a Housing Problem on both sides of the Atlantic, and this volume, therefore, appears at an opportune moment. Its author, Mr.

Morris Knowles, estimates his country's deficiency below actual needs at about two million homes, and makes it entirely clear that, as with us, this shortage synchronises with a heavy increase in construction costs. That the situation is being grappled with characteristic thoroughness and efficiency is only to be expected, and Mr. Knowles has most certainly approached his task in a corresponding spirit. Further, he is a man with a mission, for as a practising engineer he frankly claims that an industrial centre or garden city—call it what you will—fails of its purpose unless it is approached in a comprehensive way with large-scale production and utilises the services of more than one profession. To quote his own words:—

"While appreciating that engineering and its related activities of construction have a mighty part to play in the expenditure of money and the future cost of the town and its success, and although the author is a practising engineer himself, this book is not written solely for the engineer or from his point of view alone; neither is it a treatise on technical practice. It has been written in the realisation of a fact now generally acknowledged that, in addition to the architect, who is first thought of because we are thinking in terms of houses and homes, there must be present the town planner, the landscape gardener, the engineer, the sanitarian, the utility designer, the constructor, the realtor, the civicist, and the public-spirited business representative."

Now this sets one thinking, and especially those of us who have, as individuals, been called upon to fill, if not all, at any rate the majority of the rôles that Mr. Knowles enumerates. Certainly, at times such as these it falls to the lot of a practising architect to act, at least, as town planner, landscape gardener, engineer, sanitarian and utility designer.

There is, of course, much to be said in favour of the employment of a team as opposed to the retention of an individual. But, again, advocates of either system could each present a strong case. It seems, however, abundantly clear that the employment of a number of architects has, at any rate, conduced to the success of more than one of our garden suburbs, in so far as the design of the houses is concerned, and especially so when those retained have possessed the qualifications that are essential if the right type of work is to be produced. At all events, Mr. Knowles can show, from practical experience, that team work, as he interprets it, when efficiently handled, produces eminently satisfactory results. To again quote:—

"The author and his organisation had the good fortune to participate in the early months of our entrance into the war, in the creation of quarters for troops at one of the National Army cantonments, and one of the National Guard tent camps built during 1917. Later, being called to assist in the building of towns for the housing of ship workers, it was his good fortune to sit in on the consideration of the plan and scope of the program for this purpose. Both were unique experiences and intensified the belief (if this was necessary) that no one profession is competent to cope with the difficulties of housing."

"Gathered together from all parts of the country were men from all walks of life. . . Many had never heard of each other, and several only knew of the other's reputation in his chosen line. Most of the recruits were strong individualists, had done things worth while, and many had not, at least for years, worked under the

direction of others or in multiple harness. . . . Early and always there was an appreciation by all that team work, *esprit de corps*, fitting of endeavours as well as of abilities together, were needed to bring about the result. And the result was achieved. Witness the home-like communities from Maine to the Gulf, along the Atlantic, and on the Great Lakes, and even on the Pacific, which testify to the wisdom and excellence of the programme. . . . It is evident that without the team work which actuated and permeated the conference, the committee study and joint departmental action, nothing like the concerted effort could have been put forth. The necessity for the site-and-investigation committee to consider all phases of the project—social, living, working, topographical and physical conditions, the utility facilities and material possibilities—was but a forerunner of the further co-operation needed by the town planning, architectural, engineering and real estate branches of the Housing Division, in order to develop, in an orderly but at the same time prompt manner, facilities needed to house workers expeditiously."

These are stirring phrases, and Mr. Knowles goes on to tell us that the most direct influence of the war upon industrial housing grew out of the house and town construction undertaken by the Government itself. It became necessary to concentrate large bodies of workmen in the immediate vicinity of mills, factories, and ship-yards. The United States Housing Corporation and the Housing Division of the Emergency Fleet Corporation were the result. The former planned 128 towns containing 19,100 dwellings sufficient to house 21,000 families, at an estimated cost of about £22,500,000. The latter at a total expenditure of about £14,200,000, built 27 towns containing 8,841 houses, with a total capacity of 9,493 families. Both these services called to their aid skilled architects, engineers, town planners, landscape gardeners, realtors, and members of all the other professions whose work is involved in industrial housing. Details such as these formulate strong evidence in support of team work, and further make one think that these war-time building problems were more satisfactorily handled in America than here.

It is, at all events, gratifying to note Mr. Knowles's acknowledgement that, in the case of early industrial towns erected prior to the war, such attractive developments as Hampstead, Bournville, Letchworth, etc., were widely pictured as models. But at the same time Port Sunlight strengthened the recognition that paternalism could not succeed in democratic America! What would Lord Leverhulme have to say to this?

The author starts his task with a general Historical Review of Industrial Housing, followed in sequence by chapters on Fundamental Preliminary Considerations, Selection of Site, Development of the Town Plan, Streets and Pavements, Water Supply, Sewerage and Disposal of Town Wastes, and Gas and Electric Service. Each comprises a veritable mine of information, based upon practical experience, and should prove of the utmost value to those called upon to deal with problems of a similar nature in this country.

Accustomed as we are to underground cables for electric supply, it is somewhat curious to find America faithful to overhead wiring. The aesthetic gain, to say nothing of the elimination of hazard resulting from an

underground system, would appear to far outweigh the comparatively small saving resulting from the alternative method. Mr. Knowles realises these facts; but this, at any rate, is one of the things we do better here.

The four final chapters of the book are devoted to Houses for Families, Buildings other than Houses, Administration and Supervision of Construction, and Management of Industrial Towns. It is, perhaps, a little disappointing to an architect that only three different types of house plans are illustrated, especially as the chosen examples are ingeniously and conveniently arranged: a further selection would have consequently proved of interest and value. Mr. Knowles makes it clear that his countrymen are content with rooms of somewhat smaller area than those scheduled by our Ministry of Health—bedrooms, for instance, comprising 130 and 90 square feet respectively are suggested—but on the other hand practically every house is provided with a large porch or loggia, and its external walls are carried down to form a basement storey which is utilised for a heating furnace, fuel, and general storage. Again, this storage is in some instances amplified by the utilisation of the roof space, the staircase being carried up to give convenient access. These provisions, convenient as they are, must necessarily largely increase the initial outlay, and it becomes a fine point if, in this country at any rate, such roof storage would not eventually be adopted by the tenant for overflow bedroom accommodation. Judging from the examples illustrated, the double-hung sash seems to be exclusively used for windows, and the bath and water-closet are invariably placed in the same apartment. This latter provision, judged by our standards of planning, is surely anything but a desirable arrangement. The general absence of an entrance or staircase hall is again to be noted, the living room being entered direct from the large porch previously referred to, and where an entrance hall is provided it is with the view of the upper floor being exclusively used by lodgers or boarders. In such an instance, to give effective separation from the family, bath as well as sanitary accommodation is provided on both floors.

It is of further interest to hear from Mr. Knowles that in America there is a strong objection to either buying or selling individual dwellings in a multiple unit, group or row. This, of course, is entirely at variance with established practice here, but the author is of opinion that should the present high cost of building prevail for an extended period, the prejudice against owning such a house may be overcome by sheer force of circumstance. From practical experience in this country there certainly seems little ground for such objections.

The chapter devoted to Buildings other than Houses describes in detail the arrangement of quarters for Single Men and Women, Stores, Laundries, Bakeries, School Houses, Hospitals, Gymnasias, Theatres, etc., but plans of at least some of these buildings would have been welcome if only to allow of a comparison being

made with the generally accepted methods of dealing with such problems in this country.

The two final chapters, Administration and Supervision of Construction, and Management of Industrial Towns, again contain, as might be expected, much valuable information. To sum up, Mr. Morris Knowles is to be heartily congratulated on having produced a volume that should find a place on the shelves of all, either in this country or America, who are interested in the housing problem. It is true that some of the lay-out and detailed plans and elevations illustrated are not provided with line scales, and in a few instances the plans again lack compass points, but these are after all very minor blemishes when weighed in the balance with the thoroughness and general excellence of the work.

H. LIONEL THORNELY [F].

3, Sussex Terrace, Plymouth.

ROBERT ADAM AND SOANE.

Cantor Lectures on the Architecture and Decoration of Robert Adam and Sir John Soane, R.A. (1758-1837). By Arthur T. Bolton, F.S.A., F.R.I.B.A.

In the first two of these lectures, delivered before the Royal Society of Arts last May, Mr. Bolton has given a very great deal of detailed information regarding the buildings of Robert Adam, and has indicated with precision the relation that they bear to the works of his predecessors and contemporaries. The lectures give evidence of much first-hand knowledge of the buildings themselves and a thorough appreciation of the aims and outlook of the architect, and they will prove invaluable to those who, taking up the study of Adam work for the first time, require a terse but authoritative introduction to it, as well as those who are already familiar with the buildings but need an orderly enumeration of their dates, characteristics and histories by which to correct their chaotic impressions and recollections.

All the ground cannot, of course, be covered in the course of two lectures, and Mr. Bolton indicates clearly the parts of the field that he has been unable to enter, and makes, too, the welcome announcement that he has two folio volumes in the press in which he will give a full and adequate summary of the whole of Robert Adam's work. This fact (and a similar announcement in the last lecture of a forthcoming "Publication of the Sir John Soane Museum") to a great extent disarms criticism, for one feels that the omissions that one might be inclined to note are made deliberately and will be made good fully in the forthcoming books to which the lecturer referred his audience.

There is one general criticism, however, which applies to all three lectures which may, perhaps, be offered. Mr. Bolton, throughout, assumes an attitude of appreciation and understanding on the part of his audience towards the subjects of the lectures. He is not concerned to justify the works of Adam to man, so much as to show in what particulars he excelled other architects working, broadly speaking, on the same

lines, taking the same things for granted, talking the same architectural language. He does not set out to interpret that language to us. He does not question the propriety of worshipping these particular idols; he is concerned, rather, with indicating their relative importance in the Pantheon.

But to some extent in the case of Robert Adam, and to a very great extent in the case of Sir John Soane, the need is for some one to tackle the task of enabling those who have a blind spot towards these masters to see them. It is true that there are probably few who cannot appreciate some aspect of Robert Adam's work, but one fancies that there are many (among architects, too) who cannot "see" Soane at all, and would scarcely drop a tear if destruction threatened even his masterpiece.

Mr. Bolton, indeed, wisely remarks (in the lecture on Sir John Soane): "Whatever the theory that may be put forth as an infallible guide in architecture and decoration, it is surely obvious that it must be applicable to all styles alike and be true of the most ancient as well as of the most modern masterpieces." But although he summarises pithily Soane's failings ("He is always a pioneer pointing towards something which is perhaps incapable of being realised and all the time hampered himself by difficulties of expression never completely mastered"), the quality which entitles Soane to fame does not emerge: one does not grasp what is the essential Soaneness of a Soane building and the justification for it.

So too in the lectures on Robert Adam, Mr. Bolton notes the difficulties that prevent us from fully appreciating the intention behind his decorative schemes: "The general knowledge of antiquity, its literature, legends and myths, as well as the common forms of their expression in ancient art, amongst the class for whom Robert Adam chiefly worked, was a valuable background for his achievements. As a source of expression the original fables were current coin. . . . To-day many of the Adam bas-reliefs and subjects have become merely a riddle to the spectator who misses the application that suggested their particular use." Somehow, if we are to estimate rightly the work of Adam, we must screw ourselves round to the viewpoint of those for whom he built: we must understand, if we cannot share, the state of mind that was appealed to by this sort of work. It is not an easy task ("The alternating panels are filled in with twin mermaids rising from a base of cannons, rifles, anchors, flags, swords, spears and even drums, a mass of decorative symbolism dear to the heart of the eighteenth century": from the description of Hatchlands), but this task of interpreting the unappreciated is the most important, and perhaps the most difficult, task that an architectural writer can essay. Each generation has its peculiar duty in this respect. Mr. Bolton is admirably qualified by wide knowledge and just appreciation lucidly expressed, to perform this service for Robert Adam and Sir John Soane, and we shall look forward, therefore, with keen expectation to the books

that he has promised us. It remains to add a note on the admirable illustrations to the lectures, especially the nine photographs of Syon House by Mr. Yerbury, which are exceptionally illuminating and do the fullest possible justice to the features they illustrate.

T. S. ATTLEE [A].

ARCHITECTURAL DRAUGHTSMANSHIP.

The Liverpool University Architectural Sketchbook, Vol. IV, 1913-1920. Technical Journals, Ltd., 27-28, Port of Liverpool, W. & A. S. B. Co., S.W.

The Liverpool University School of Architecture has for nearly twenty years taken a leading part in the development of the "Neo-Grec" manner, and in the almost revolutionary change of method in representing architectural design on paper according to the system of the Ecole des Beaux-Arts and the American Schools—a method which in this country finds its culmination in the competition for the Rome Scholarship, where Liverpool students have been conspicuously successful.

This fourth volume of the *Liverpool Sketchbook*, beautifully produced and bound, covers a period of seven years up to 1920, and may therefore be taken as a specially favourable "test case" for the merits or defects of the modern system of draughtsmanship. The illustrations consist of about 100 plates, of which 18 are measured drawings of existing work or compositions of classical elements, and the rest are original designs, including seven plates of drawings for the Rome Scholarship of 1920, which were recently exhibited at the Grafton Galleries.

The first impression received from the plates as a whole confirms Sir Reginald Blomfield's dictum in the last *Papers of the British School at Rome*, that "Draughtsmanship is taking charge of Architecture," a fact which has for some time been apparent to anyone familiar with the methods and routine of our leading schools. The "rendering" of drawings is now pursued as an end in itself, and may easily reach a point where it becomes impossible to see the wood for the trees: certainly at the Grafton Galleries Exhibition one felt that the architectural schemes were difficult to criticise because they were so much entangled in and overwhelmed by the elaboration of the drawings, on which, for instance, unnumbered hours must have been spent in filling in the details of minute marble pavements which contributed nothing whatever to the merits of the design, but undoubtedly made an entertaining pattern on the paper.

A reviewer who was a student of the School in the "pre-rendering" period cannot help feeling that a great part of the time now devoted to draughtsmanship is pure luxury, so far as architectural education is concerned, however enjoyable the process may be to the student himself.

To set against this, however, an example of the golden mean may be found among the measured drawings, in three very beautiful plates illustrating the University of Edinburgh: here the severe dignity of the actual building restrains the rendering within

reasonable limits, while the drawings are certainly more interesting and attractive than the old-fashioned line drawings would have been. The student uses none of the irritating modern dodges of gradated tones in the plans, backgrounds, or borders, and the whole series is a model of truthful and pleasing representation. There are also some good drawings of buildings in Manchester of varying merit, and a plate of the inevitable Palazzo Massimo at Rome, for which there should surely be a "close time" if it is not to be worn away by the rods and tapes of battalions of measurers, while the unfortunate inhabitants might fairly claim some intervals of domestic peace.

In addition to the question of modern draughtsmanship, the *Sketchbook* also raises another problem—the position (if any) of that formerly indispensable person, the Client, in architectural education. Of the sixty-two plates of original design, only four could be described as aimed at a possible client of the old-fashioned kind who was presumed to want a Suburban House, or a Town Church, or a Golf Club. None of these designs are of later date than 1916, at which stage in the war the Client, after a precarious career, seems to have been finally eliminated, and the student left free to soar into regions of abstract design, unfettered by any practical considerations. The altitude record, however, had been reached as long ago as 1913, in the design for a "Monument Commemorating the Universal Adoption of the Meridian of Greenwich," not in itself a highly exciting event except to the Astronomer Royal, and hardly justifying one of the most colossal and complicated schemes that a student can ever have put on paper!

As an example of the aims and results of Academic training, the *Liverpool Sketchbook* is altogether admirable: but one is driven to wonder how the student, after the training is completed, manages the headlong descent from these sublime heights of abstract design to the prosaic depths of the actual work which will probably fall to his lot in the early stages of his private practice.

RONALD P. JONES [F.].

BUNGALOWS.

The Book of Bungalows. By R. Randal Phillips. Svo. Lond. 1920. 8s. 6d. [Country Life Office.]

This is a good little book for several reasons. It is a book which should prove interesting and useful both to the architect and the layman. Furthermore, it is one which will help towards the *extente cordate*, without which satisfactory architectural results are seldom achieved. Any book which states clearly a public demand from the public point of view and which, by illustration and letterpress, can stimulate the architect to supply tastefully this demand, is particularly welcome. The first five chapters treat of: (1) Planning and Design; (2) Methods and Construction; (3) Equipment; (4) Furnishing; (5) Building a Bungalow with the Government Subsidy (paragraph 3, page 46, "The house must be completed by December 23rd, 1921," is presumably out of date, but it would be hard indeed to

keep pace with the vagaries of legislation in these times). The remainder is devoted to examples with plans, elevations and photographs, and a short description giving whys and wherefores. The examples on the whole are well chosen, but there are one or two without much to recommend them. With the exception of pisé and a few methods of building in concrete Mr. Phillips wisely refrains from freak construction.

After reading the book and making a study of the plans one comes to the conclusion that the bungalow proper is suitable only for a small number of rooms, the limit being: Living room, verandah, kitchen-scuttery, larder, three bedrooms, bath, two w.c.'s, coals, etc. A greater number of rooms seems to involve difficulties in planning resulting in inconveniences which outweigh the advantages pertaining to a smaller one-floor arrangement.

It is an unfortunate omission that two of the best examples should have no architects' names to them. One of these (page 90), "Bungalows on Church Island, Staines," is planned on the ship principle, having a "saloon" and three cabins off it fitted with fixed bunks. The verandah in this example is adequate for sitting out in, or having meals in, a point which seems to have escaped the notice of some of the designers. The exterior treatment is charming—more so than the photograph conveys. It is an example from the hand of Thomas Davison, and illustrates the care and thought bestowed upon the smallest details which characterise his work.

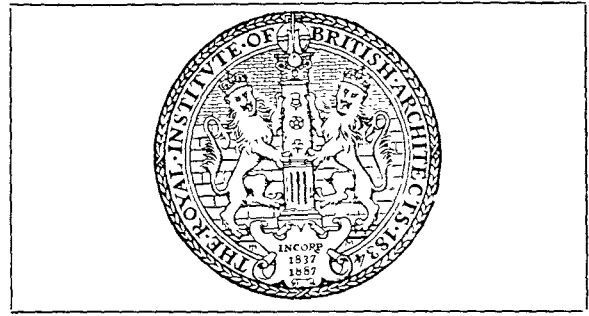
Mr. Phillips has made the book so complete that in spite of the fact that he has given a list of architects' names and addresses at the end of the volume, a good many people might be tempted to select the plan they like the best and to instruct a builder to carry it out, thus dispensing with the services of an architect. Many years ago, however, a book was published, *Every Man His Own Lawyer*, by "A Solicitor." This book it is said, brought much grist to the legal mill. Let us, therefore, take the optimistic view that Mr. Phillips will prove to be the means of introducing, if not ideal clients for ideal bungalows, then plenty of professional rescue work.

W. W. SCOTT-MONCRIEFF [F.]

Honours for the President.

The President, Mr. John W. Simpson, has received from M. Louvet, President of the Société des Architectes diplômés par le Gouvernement, notification of his election as *Membre Correspondant* of that body.

The President has also been elected an Honorary Member of the Institute of Scottish Architects. In conveying to the President intimation of his election, Mr. W. Glassford Walker, Secretary of the Scottish Institute writes:—"I was instructed, when forwarding you this intimation, to inform you that the election was due not only, or primarily, to the position of President of the Royal Institute of British Architects which you so ably fill, but in recognition of your personal worth as an architect, and more especially of your long continued and self-sacrificing labours for the promotion of the interests and advancement of our Art."



9 CONDUIT STREET, REGENT STREET, W., 5th Feb. 1921.

CHRONICLE.

Students' Night at the Institute.

Students' night at the Institute attracted a numerous company of members and students and their friends, and several distinguished people honoured the proceedings by their presence. The Council had entertained at their Dinner that evening at the Café Royal Sir A. Selby-Bigge, Bt., K.C.B., Permanent Secretary of the Board of Education; Sir Gregory Foster, Provost of University College (London); Sir A. Cope, R.A.; Lady Banister Fletcher; Professor W. Rothenstein, President of the Royal College of Art; also the principal prize-winners, Mr. Gordon Holt (*Tide Prize-man*) and Mr. C. B. Pearson [F] (*Godwin Bursar*); Mr. H. Chalton Bradshaw [A.], Rome Scholar in Architecture, and Mr. Howard Robertson, S.A.D.G., Principal of the Architectural Association Day Schools. Present also at the Council Dinner, among numerous past and present members of Council, were Past President Mr. Ernest Newton, C.B.E., R.A., and Past Vice-Presidents Sir John Burnet, LL.D., R.S.A., Mr. John Slater, and Mr. Edwin T. Hall. All were afterwards present at the Institute Meeting. The President's Address was listened to with manifest appreciation both by the lay and professional members of the audience: his many telling points had evidently the hearty assent of all and were warmly applauded. Lady Banister Fletcher delighted the audience with a brilliant and very humorous speech. As the President observed, this is the first time that a lady has taken so prominent a part in an Institute function, and the hope is universally expressed that her great gifts as a speaker may often be at the service of the Institute on occasions of this kind.

A vote of thanks to Mr. Burke Downing was accorded by acclamation on the motion of the President "for his very kindly and closely reasoned analysis of the students' work." It must be said the President, some satisfaction even to the unsuccessful student to know that his designs had been very carefully studied by the Council, by the Board of Education and by a Committee specially deputed to deal with them. Further, the students had the advantage of the independent and very valuable criticism which Mr. Burke Downing had given them in his Paper.

**Notes from the Minutes of the Council Meeting,
17th January, 1921.**

Award of Prizes and Studentships.—The Council approved the report of the Board of Architectural Education on the Annual Award of Prizes and Studentships, and ordered it to be announced at the General Meeting on 17th January.

The University Court, Liverpool.—On the recommendation of the Liverpool Society of Architects the Council appointed Mr. E. P. Hinde [F.] to serve as the representative of the Royal Institute on the Court of the University for the years 1921, 1922 and 1923.

The Pugin Studentship, 1920.—The Council approved the report and drawings submitted by Mr. H. St. John Harrison, the Pugin Student for 1920.

London University Architectural Education Committee.—Mr. Arthur Keen and Mr. Paul Waterhouse were appointed as the representatives of the Royal Institute on the Architectural Education Committee of the University of London for the year 1921-1922.

Royal Sanitary Institute Congress, 1921.—Mr. H. D. Searles-Wood [F.] was appointed as the representative of the Royal Institute at the Congress of the Royal Sanitary Institute to be held at Folkestone on the 20th to 25th June, 1921.

The Plumbing Trade.—Mr. H. D. Searles-Wood [F.] was appointed as the representative of the Royal Institute on the Committee dealing with the National Scheme of Apprenticeship in the Plumbing Trade.

The Irish Civil Service.—A communication has been addressed to the Chief Secretary for Ireland urging the appointment of a representative of the Professional and Technical Division of the Irish Civil Service on the Civil Service Committee.

Royal Commission on Fire Losses.—A communication has been addressed to the Home Secretary urging the appointment of one or more architects on the Royal Commission that is to deal with the question of Fire Control, Losses, etc.

The late Henry T. Hare, Past President.

The Competitions Committee, at their meeting on the 11th January, passed the following resolution: "The Competitions Committee have learned with the deepest regret of the death of Mr. Henry T. Hare. As Chairman of the Committee for several years, Mr. Hare took a more than usually active interest in the work, and although many calls were made upon his time and energy in other directions he could always be depended upon by his presence, by his wise and helpful counsel, and by his active assistance to further and render effective to the utmost of his power the efforts of the Committee."

"By a Resolution passed at their meeting on the 11th January, the Competitions Committee most respectfully wish to convey to the members of Mr. Hare's family their sincerest sympathy and to express the esteem and high appreciation in which Mr. Hare was held by all who were privileged to be associated with him in the work of the Committee."

The President at Manchester.

At the Annual Dinner of the Manchester Society of Architects, held at the Grand Hotel, Manchester, on the 18th January, Mr. John W. Simpson, *President R.I.B.A.*, was the principal guest.

Mr. A. W. Hennings [F.], President of the Manchester Society, who was in the chair, in proposing "The Royal Institute of British Architects," said that the influence of the Royal Institute, with that of the Allied Societies, now covered the whole of the country; that a feature of its policy was education, and that as regarded the future they must look to the Institute as their leader and helper. Particularly was this so on the great question of the registration of architects: they must help the Institute to secure for the profession the recognition it deserved.

Mr. SIMPSON, in reply, said the Institute was the oldest architectural society in the world and the envy and admiration of their professional brethren in foreign countries. There was a movement on foot to secure greater consolidation and unity, and a scheme to that end was in course of preparation. But in the remodelling nothing must be done which would in any way injure the standing or position of the Institute, or diminish the prestige or power of its allied societies. On the other hand, decentralisation was rather to be aimed at—the complete autonomy of the provincial societies, subject only to the guidance in any policy by headquarters. The times were still unsettled, largely owing to the continued bureaucratic control of the Government. They submitted to it without grumbling during the war; but it was over two and a half years since the Armistice, yet the officials still maintained their strangle-hold of our industries. "We had," said Mr. Simpson, "always managed our own affairs before the war—I think we may claim, with very fair success—and we believe we can manage our affairs better than the Government can manage them for us. We are sick to death of being governed—governed, moreover, by the petty, trivial interferences of officials. There is no worse way of getting anything done than by a Government department. They run and muddle everything they touch, whether it be telephones or railways or housing." Now, he continued, they had an effort to conceal and dissemble the housing failure by touting the local authorities for work to keep the officials of the Office of Works busy. What were the inducements offered to these authorities? They said: "We are architects, and can do all the work you want, but you need not pay architects' fees." Architects, then, were paying them by means of taxes, and in return officials were destroying architects' livelihoods by unprofessional means. The moral of this was that they needed political influence, and they must so organise that they would ensure the return of their own professional members of Parliament, irrespective of party, charged to look after the interests of professional men. Dealing with future projects, Mr. Simpson said the Institute Council had decided to establish an annual Conference of Architects: it had just completed a scheme for a Professional Defence Union; and also proposed to establish a Union of French and British Architects. "That," observed Mr. Simpson, "is extremely good politics."

Mr. T. Taliesin Rees, President of the Liverpool Society, also replying, said the Institute had a very hard task to fight the department which was taking over housing, the care of ancient monuments and some public buildings in connection with municipalities.

Mr. Francis Jones, in proposing "The Manchester University and School of Architecture," referred to the educative work that was being performed in this regard and to the growth of students, and took pleasure in the fact that they had now a third and powerful ally in the Builders' Institute. Mr. Jones expressed the hope that the students in architecture and allied subjects would be enabled to carry out their work and studies under one roof.

Professor Tout, in response, said nothing had been more encouraging to the promoters of the University appeal than the gift, which ran into four figures, from the Builders' Institute to increase the endowment of the Manchester School of Architecture. He hoped the time would soon come when the whole school would be in one building, under one direction, and with a single organisation.

"Is Architecture Worth While?"

Mr. Paul Waterhouse, F.S.A. [F.], delivered on the 21st January the first of a series of popular lectures which have been arranged by the Manchester Branch of the Institute of Builders in co-operation with the Manchester Society of Architects and the Manchester University, in furtherance of a movement to cultivate a better standard of taste in modern building.* Mr. Henry Matthews, President of the Institute of Builders, in introducing the lecturer, said that in this movement they wanted to carry the public along with them so that its taste should be elevated to a higher level than it was at present, and so that they might have its influence and support in destroying the unsightly things which existed around us, especially the slums, where there was so much disease and so much unnecessary loss of life.

Mr. Waterhouse entitled his subject "Is Architecture Worth While?" Even accepting, he said, that an architect was merely an organising person who prearranged the uses of materials, architecture was worth while, inasmuch as it prevented materials being handled in a wasteful and costly way. The mere preliminary arrangement for the use of materials, though not in itself architecture, became architecture when handled with knowledge and skill, knowledge of style, superadded to skill in arrangement. He dissented from the view that architecture in the high art sense was a sort of luxury which only rich men and rich corporations could afford. No one could say what was really a luxury and what necessity. It might be said that a bit of meat and a rag were all that were necessary for a man, but the whole trend of civilisation was to increase human wants. To-day everybody wanted buildings. Was it unnecessary that they should be architectural? Take the problem of the cottage and the small house. They were being standardised by the Government. He realised that costs must be cut down to the minimum, but he was surprised that the public had abandoned itself to the idea that the lithographic types issued by the Government were the only types that could be adhered to.

Great knowledge and sound knowledge were necessary for the architect. It was a mistake to think that these qualifications contributed to complications. On the contrary, they made for simplicity. The absence of them had led to many fine buildings being spoiled by the architects of the nineteenth century. What the lecturer called the "vernacular methods" of the eighteenth century in Eng-

land produced work which we all admired to-day. It was not all done by architects, but was nevertheless all due to architecture. A great deal of it was attributable to tradition of design in the classic form which coming in with the Renaissance had gradually permeated the workshops of carpenters and masons and come to be applied almost subconsciously. Mr. Waterhouse suggested that a good deal of the bad architecture now seen was in a measure owing to the Gothic revival. That revival was a mischief-maker in the sense that it led to the exact opposite of the intentions of the movement. There sprang up alongside the Gothic period a race of designers recruited from the old stagers who mutilated the classic form. They thought that they must be in the swim, that the public was getting to like free art, and they said "We can be as free as any one else." And that was the origin of much of the poor architecture we saw in London, Manchester and elsewhere to-day—an architecture which was not even mongrel.

It was a characteristic of all true architecture that it must conform to the past, or else it failed. Architecture was a language, not only between us and our contemporaries, but linking us to the future and to the past. A good architect did not worry himself with whether he was working "by the book," for great traditions were so embedded in him that he "got there." Architecture was not a luxury. It was not an addition to building, but a synonym for skill and excellence in building. A country with bad architecture was like a man without a good suit of clothes. Architecture did not lead to expense, but expense led to architecture. A man would not go to a ball in flannel trousers and a sports jacket. Of course he could, but he'd better not, for a question of decency was involved. It was not a question of extravagance. Good building was a question of tidiness and decency. We did not dispense justice in a corrugated-iron hut nor would we like to see the judge sitting on the bench in dressing gown and slippers. That would not make for dignity. In our clothes we tried to make for dignity, in our manners we made for dignity, and surely we ought to have dignity in our buildings. The public was mistaken when saying that the architect made buildings more expensive. That was not the case. "You must have something better than a pig-sty, and the architect, while controlling the expense, is the man to make it something better." Good architecture, all through the ages, had, and would have, an elevating influence on mankind.*

The Daily Newspaper and Architecture.

How to interest the public in architecture is a question that has often been discussed. It was suggested some time ago in these pages that the aid of the daily newspaper might be invoked to rouse public interest in the architecture of our towns and cities, that space should be devoted occasionally to criticism of buildings by architect-writers that could be appreciated by the man-in-the-street. It is of interest, therefore, to note that the *Liverpool Post* has opened its columns recently to a series of articles on the architecture of Liverpool streets, written in a popular vein by Professor C. H. Reilly [F.], Professor of Architecture at Liverpool University. Calling attention to these articles the *Liverpool Post* says: "Considering what good architecture means to a city, it is surprising that

* Particulars of this movement were given by Mr. Hubert Worthington [F.] in a communication published in the *JOURNAL* for 5th January, p. 141.

* Mr. Waterhouse's lecture is published in full in the *ARCHITECTS' JOURNAL* of the 2nd February.

it should have received so little attention. The painter submits his work for critical appraisal, yet a painting may mean nothing to the public. With the architect it is very different: every building and many alterations of buildings are of importance to the public. Every building deserves therefore very careful scrutiny, and perhaps criticism." To people with a knowledge of architecture every street is a picture-gallery, and it concerns them intimately that the exhibits should be interesting and pleasing to look at. Sir Banister Fletcher puts it very happily in a Paper read at the International Congress of Architects in 1906: "Our free gallery of buildings varies with the day and time of year; we may see them in the haze of early dawn, in the full flood of noonday sun, in the dimness of twilight or in the weirdness of moonlight, while in the change of seasons we get that variety which gives them life." Professor Reilly, in his *Liverpool Post* articles, conducts his readers through the principal business thoroughfares of Liverpool, and points out all that is pleasing or unpleasing in the buildings, pausing before those of outstanding merit to draw attention to qualities which give them a special charm but which would probably be missed by the uninstructed. His aim is to lead the public who build to appreciate what is good in architecture and to reject what is bad; also to inculcate that sense of tidiness which will impel the tenants to keep the fronts of their premises in decent condition by repainting or other treatment, and prevent also that indiscriminate use of lettering on the faces of the buildings which has become so disfiguring a feature of our streets. Other papers would be doing public service by following the lead of the *Liverpool Post*, for the dissemination of a taste for architecture is a sound policy. To the ordinary individual architecture simply means ornament: "this fallacy," said Sir T. G. Jackson at the Congress above referred to, "lies at the root of all the debased gaudy work that disfigures our streets. Till the public are enlightened as to the difference between ornamenting buildings and building beautifully, and till they learn that to be artistic it is not necessary to be smart, it can hardly be said that their education in architecture has even begun. . . . Every good, honest building the architect puts upon the ground is in itself a better sermon than any that can be read or preached."

The Royal West of England Academy School of Architecture.

Following the example of other great centres here and in the Overseas Dominions, Bristol has started its own School of Architecture, the promoters being the Royal West of England Academy in alliance with the Bristol Society of Architects. Affiliated with the Architectural Association School in London, and having at its service the expert direction of that body, the School opens under the most favourable auspices. The Architectural Association has assisted in its organisation and in the preparation of its curriculum, and has lent one of its Masters to give part-time service. Later,

when a full-time Master is appointed, the Association will be in close touch with the School through its representative on the Committee and also through the "liaison" Master it will send down at short intervals, and whose business it will be to co-ordinate the studies of the two Schools. The full title of the institution is "The Royal West of England Academy School of Architecture, affiliated with the Architectural Association of London." Like the parent institution in London, the School is controlled and its curriculum laid down by practising architects. While there is a definite pre-arranged programme of study, arrangements are made to meet the varying acquirements of individual students. For the present the School is open for two days only in each week, and on a third evening for private study. The Master, who is responsible for the teaching, is Mr. H. Chalton Bradshaw [A.], Rome Scholar in Architecture, and one of the Masters of the A.A. School. He will be assisted from time to time by specialists in various subjects. The fees for ordinary students are £5 5s. a term: amateurs are admitted on special terms. Entrance scholarships will be awarded entitling to free tuition for one year, and prizes will be given by the Royal West of England Academy, the Architectural Association and the Bristol Society of Architects. As the success of the new venture will largely depend upon the support and active backing it receives from the profession in Bristol and the counties forming the province of the Bristol Society, architects in these districts are strongly urged to encourage their pupils and assistants to take advantage of the opportunities the new School affords.

The Office of Works and Building Schemes: Building Restrictions.

The following resolution was passed at the annual general meeting of the National Federation of Building Trades Employers of Great Britain and Ireland, the President, Mr. S. Easton, in the chair:—

"That this meeting protests against the Office of Works undertaking any contracts in regard to building schemes, but that where contracts have been entered into the National Federation be requested to take such steps, through Parliament or otherwise, as they may deem advisable for the purpose of ascertaining the cost of housing by the Office of Works, and whether the cost of superintendence, administration, and other overhead charges are borne by the local authorities."

The same meeting also resolved: "That having reviewed the present condition of affairs in the country, and the building trade in particular, this general meeting of the National Federation strongly recommends the Government to consider, in view of the decreased volume of building work generally, the desirability of repealing all prohibitory powers over building works now in operation under the Housing (Additional Powers) Act, 1919, and regulations made thereunder, in the short Act to be introduced in the forthcoming session to continue the subsidy scheme of the Ministry of Health."

Canterbury Cathedral.

The Times of the 4th inst. published the following appeal by Dr. Wace, Dean of Canterbury :—

I venture to hope that before the period of thank-giving memorials is closed the position of Canterbury Cathedral may be recalled to the public mind. The reparation of the exterior of this Cathedral was necessarily suspended when the war broke out in 1914. At that date we had just completed the reparation of the three great towers, at a cost of about £35,000; and it may be hoped that, with due attention to the large amount of old stone left in their surface, these splendid structures have now been placed in a thoroughly sound condition.

But a considerable amount of stonework, both in the nave and in the north and south aisles, urgently requires repair; and the pinnacles of the nave are in a lamentable, and even dangerous, condition. The architect's estimate for the pinnacles and the nave is £3,500, and for the work in the aisles £5,500. We had also, when the war interrupted us, commenced to repair the upper part of Becket's Crown, at the east end of the choir, and £1,500 further is needed to complete this work. There is a good deal of other stonework, particularly in the cloisters, which urgently needs treatment by a preservative process, and the architect considers that about £3,000 is required for this purpose. . . .

Besides all this, much expense had to be incurred during the war in safeguarding the monuments and other ancient treasures of the Cathedral, particularly the priceless stained glass of the thirteenth century. It was thought imperative to remove all this glass from the windows and to store it in security, and it is now being gradually replaced. The cost of this treatment of the glass alone will be about £1,000. Good, however, will come from this inconvenience, for some of the old glass which had become misplaced will be restored to its proper position, and the windows will be greatly improved by the cleaning of the glass and its re-leading.

On the whole, to complete the reparations which were in hand before the war, and to meet the expenses which have been occasioned by the war, we need a sum of £15,000. I need hardly explain that the Dean and Chapter have to meet greatly increased charges for the maintenance, under present financial conditions, of the ordinary staff and services of the Cathedral, and that they have consequently no resources for this special expenditure. But it is all really necessary if the exterior of the Cathedral is to be placed in a safe condition and its interior relieved from the disfigurements which were inflicted on it by the war.

There is reason, indeed, for great thankfulness that, although the Cathedral lay very much in the track of the German aeroplanes between the Kent coast and London, it suffered no damage from bombs; and it is felt by many that the completion of its reparations would be a fitting thank-offering. The motto of Canterbury, *Ave Mater Anglia*, applies with peculiar force to its Cathedral church; for, as the late Lambeth Conference reminded us, it is the real Mother of all Anglican Christianity, and its maintenance in a worthy condition must appeal to the sympathies of Anglican Churchmen everywhere.

If I may presume to add a personal note, I would say that, although at the age of 84 I can hardly hope to see all these repairs accomplished, I should be deeply grateful if I might be allowed to hand on to my successor sufficient funds to complete the work which I have had the privilege of promoting. Contributions will be gratefully acknowledged if sent either to myself or to the account of the Cathedral Reparation Fund at Lloyds Bank, Canterbury.

Compliment to an R.I.B.A. Student at Toronto.

The Board of Architectural Education signalled their approbation of the excellent work produced by a student, Mr. T. H. Mace, in the course of the R.I.B.A. Special War Examination recently held at Toronto, by causing his drawings to be shown at the exhibition of works submitted for the Institute prizes this year. The subject is a design for a chapel, with gallery, to seat 400 persons; vestries and sanitary accommodation also to be provided. The drawings consist of the plan, cross and longitudinal sections and two elevations to $\frac{1}{4}$ in. scale, one sheet of details and one bay to $\frac{1}{2}$ in. scale. Intimation of the subject was conveyed to the candidates a week before the examination began. On the first day candidates were required to produce and deliver up a sketch plan, and the whole of the drawings, based on this plan, had to be completed in four days. Mr. Mace turned out in the allotted time a very creditable design and presented his composition in a series of drawings which received high commendation from the Examiners.

New Wide Arterial Roads.

Colonel C. H. Bressey, Divisional Engineer of the London Roads Branch of the Ministry of Transport, lecturing recently on the history of roads at the Institute of Transport, said that for the new arterial roads in the Metropolitan area a width of about 100 ft. between fences was being commonly adopted. But it was not proposed at present to cover this extent of ground with actual road construction. The work now in hand comprised the fencing of the land, the shaping and grading of the full width between fences, and the construction of a carriage-way about 24 ft. wide, with footways sufficient for to-day's requirements. In most cases the new carriage way would be constructed towards one side of the 100 ft. Later the idea was to form a second carriage way on the other side. Between the two carriage ways there would be an unmetalled strip which might some day be used for a sleeper tram-track or other forms of mechanical transport.

Conferences at Olympia.

The Higher Production Council is organising, in connection with the *Daily Mail* Efficiency Exhibition, a series of conferences at Olympia from February 10th to 26th. On February 15th and 16th there will be two conferences in the morning and afternoon of each day, that on the 15th dealing with Traffic Control, and that on the 16th with various aspects of Civil Life, including the provision of open spaces, smoke abatement, disfigurement of towns, and atmospheric pollution. Members of the Institute are invited to be present at these Conferences and to take part in the discussions. Tickets may be had from the Secretary R.I.B.A., provided application be made for them not later than Thursday, February 10th.

A further conference will take place in the afternoon of February 12th, the subject of discussion being Satellite Towns in relation to Industrial Efficiency. Applications for tickets must be made direct to the Office of the Higher Production Council, 66, Victoria Street, S.W.1, and must be received there by February 9th.

ALLIED SOCIETIES.

Royal Institute of the Architects of Ireland.

The following are extracts from the Eighty-first Annual Report, which was recently issued :—

There has been a considerable accession of new members during the past year, doubtless due in some measure to the successful policy pursued by your Council in connection with the employment upon housing schemes of fully qualified architects, and also to the ever-growing desire amongst those who practise the profession of architecture to strengthen the body representative of that profession in Ireland. Applications for membership from all parts of the country were so numerous that their consideration placed a heavy responsibility upon your Council. Each application was carefully scrutinised, and wherever it was thought necessary searching inquiry was made as to the qualifications of the candidate. As a result of the experience thus gained, your Council arrived at the conclusion that the clause in the Articles of Association dealing with the qualifications for membership could with advantage be amended. Steps will therefore be taken, early in the new session, in accordance with the Constitution, to obtain the sanction of the registered members to the alteration of Clause 8, sub-section (b), which your Council recommend should read as follows :— " who have been engaged for at least seven successive years in practice as principals, and who are, in the opinion of the Council, fit and proper persons to be admitted to membership."

At the first meeting in January the attention of the Council was directed to the important question of the registration of architects, which had once again been forced into prominence owing to the action of the engineering profession in preparing a Bill for their own registration. The following resolution was unanimously adopted and forwarded to the R.I.B.A. :— " That this Council is strongly in favour of the registration of architects, and will support the R.I.B.A. in any suitable action they may take in the matter."

No serious progress has yet been made towards the creation of branches of the Institute in Cork and Belfast, although the matter has formed the subject of correspondence during the year. The Council feel assured that they are expressing the view of every member of the Institute in stating their desire for the unification of the profession in Ireland, and in advocating the formation of strong branches in the various provinces with the object of fostering an interest in architecture amongst the community, and of still further strengthening the bonds of comradeship amongst those who practise our profession.

Your Council regret that comparatively little progress has been made in providing suitable housing accommodation for the industrial classes in Ireland. Great difficulties have been experienced in solving housing problems in Great Britain, but those have been in a large measure overcome by the determined action on the part of responsible authorities. It is to be hoped that before long evidence of similar action may be observable at home, and that some sustained effort may be made to meet the deficiency of sanitary dwellings which has existed in Ireland for many years past. The R.I.B.A. have addressed several inquiries to this Institute in connection with the " Use of Building Materials, Delay in Housing Schemes, and Luxury Building," and in each case your Council has sought and obtained the desired information. It should here be stated that as every new member is elected to the Institute his name is automatically placed on the list of architects qualified to deal with housing schemes, which is retained at the office of the Local Government Board.

Your Council have been approached by the Institution of Professional Civil Servants in connection with certain amendments which that body desired should be incorporated in the Government of Ireland Bill to protect the interests of professional officers, and resolved to support, as far as lay within their power, the reasonable and just claims set

forth therein: viz., that the professional and technical branch of the Civil Service is entitled to the direct representation of its interests on the Civil Service Committee contemplated under the Bill, and that professional and technical officers are entitled to better terms of compensation on retirement than are provided for in the Bill. Later your Council was invited to nominate a representative to attend a deputation which was being formed to lay the views of the Institution of Professional Civil Servants before the Government, and unanimously agreed to comply with this request. In giving their support to professional officials, many of whom are members of this Institute, your Council does not stand alone, and it is satisfactory to learn that the bodies representing all the other great professions have also welcomed an opportunity of showing their ardent sympathy with two very reasonable requirements. The considerable difference that exists in the salaries and emoluments of architects acting in an official capacity in England and Ireland has also been brought to the Council's notice. That the salary scale for a fully qualified architect in Ireland should be considerably lower than that of a colleague in Great Britain is manifestly unjust. Your Council do not approve of the principle that the official architecture of a country should remain in the hands of a Government department, but it is clear that while that practice obtains men of the highest attainments and of considerable experience in the profession should alone enter the Civil Service; and, that while officials in Ireland continue to suffer considerable disability as compared with their colleagues across the water, the result can only be harmful to the profession generally and crippling to the prospects of Irish architectural students.

The exhibition of the prize drawings of the R.I.B.A. was held, by kind permission of the Architectural Association of Ireland, at 15, South Frederick Lane, in the second week in June. The number and excellence of the drawings, and the fact that this exhibition had not been held for many years owing to the war, attracted a large attendance.

The attention of the R.I.B.A. has been called to the omission of the School of Architecture at the National University from the list of schools referred to in the exemption clauses of the regulations for the examinations held by the former body. In his reply the secretary of the R.I.B.A. stated that that body welcomed the notification and had written to the authorities of the National University in connection with the subject.

In view of the close relations between the Ministry of Labour and this Institute last year, it is interesting to observe that your Council have received a letter from the Ministry conveying their appreciation of the valuable assistance rendered by Mr. Kaye-Parry in the solution of various problems of re-settlement, and notifying the co-optation of your President on the Interviewing Board for Engineering, Architecture and Applied Science.

The Professional Practice Committee, as usual, have been busily engaged in dealing with important references from your Council. Amongst the recommendations received from that Committee, and adopted by your Council, may be mentioned: That the regulations for conducting competitions issued by the R.I.B.A. should be accepted by this Institute; that a roll of the registered members be prepared, and that all present and future registered members should sign this roll, and a valuable record would thus be formed. The Committee also continued to consider the result of the investigations of the Post-War Committee on Architectural Practice, which are being conducted by the American Institute of Architects. The Professional Practice Committee also considered the admirable message of the President of the R.I.B.A. on professional conduct and practice. Some suggestions were submitted to the R.I.B.A., which were incorporated in the final clauses of a memorandum on the subject which your Council decided to publish in the 1929 issue of the *Journal*, now in the hands of the members.

Your Council feel that their Report would be incomplete without reference to the strike which has now for some weeks been in existence in connection with certain of the building trades. At the request of the Dublin Building Trades Employers' Association, and of certain representatives of the actual trades concerned, your Council received deputations from the respective bodies, and listened with interest and sympathy to the opinions that each expressed. It has never been the policy of the Institute to take active steps in connection with disputes in the labour world; but having heard the views of both sides, your Council feel that the difficulty of final settlement is by no means insuperable. This strike, entailing hardship on a large section of the industrial classes, and crippling the building industry, which for so many years has suffered by the restrictive regulations issued during the war, adds immeasurably to the many disabilities and very serious troubles under which Ireland has laboured for so long. Your Council, on your behalf, express the sincere and earnest hope that the gloom and anguish in this country may soon be dispelled, and that the New Year may herald the dawn of a long overdue era of prosperity and contentment, during which the needs and aspirations of the Irish people may be fully and generously recognised.

Birmingham Architectural Association.

At the seventh general meeting of the session, held at the Imperial Hotel, Birmingham, on Friday, 28th January, Mr. H. T. Buckland [F.] presiding, Mr. H. E. Forrest gave an interesting lecture on "The Old Houses of Shrewsbury," with lantern illustrations. Although not an architect, Mr. Forrest has made a long and careful study of the architecture of Shrewsbury. The old houses, said the lecturer, divide themselves naturally into three groups, according to the materials used in their construction—stone, timber and brick. Ignoring the primitive wooden huts of the Britons and Saxons, the earliest houses were a few stone mansions dating mainly from Plantagenet times. Shropshire was rich in timber, especially oak, and in the fifteenth century, when houses began to be erected in numbers, the builders naturally adopted this as the most convenient material. The first timber frames were simple. They consisted of a row of vertical posts nine inches wide and nine inches apart, reaching from floor to floor. The spaces between the uprights or studs were filled in with flat pieces of lath, wedged into grooves on either side, then clayed and finished with plaster both inside and out. The Abbot's House in Butcher Row is a fine example of this period, rendered all the more interesting by its perfect series of mediæval shops. Originally these were open booths, the shopkeeper sitting inside and the customer conversing with him from the street. The wide oaken sills on which the merchandise was displayed are still intact. In Queen Elizabeth's reign the timber houses reached a very high state of perfection, many of them being lavishly ornamented. In Shrewsbury a sunken quatrefoil seems to have been the favourite design of one particular craftsman, as it is confined to the immediate vicinity and appears on some eight or nine houses erected between 1570 and 1595—Owen's Mansion in High Street is a notable example. Timber houses continued to be erected as late as the reign of Charles II. The use of bricks was at first confined to the chimney-stacks of timber houses, but about 1580 a few houses with brick walls were built in Shropshire; Condover Hall is a fine example. The earliest brick house built in Shrewsbury was Rowley's Mansion in Hills Lane, which dates from 1681.

The Ulster Society of Architects.

The Council of the Ulster Society of Architects, in their Report for 1920, state that owing to the operation of the

curfew law the General Meetings of the Society have had to be held at very inconvenient hours; there have been, however, good attendances of members at all the meetings. The Council have before them the questions of affiliation with the R.I.B.A., and a resumption of friendly intercourse and union with their representatives, the Royal Institute of the Architects of Ireland. A sub-committee is in touch with the latter body on the question which affects them. The Education Committee have been in consultation with the Architectural Section of the Belfast Technical Schools, with the result that architectural day classes have been inaugurated and a first- and second-year course drawn up and put into operation, which is proving of great assistance to the junior members who have joined. The Council appeal to members to give the scheme their whole-hearted support; the success of these classes would lead to a Chair of Architecture being set up in Belfast University. In order to stimulate the interest of members in the Society and in one another the Council have inaugurated monthly luncheons. These are reported to be a great success, giving opportunity, too, for the discussion of questions of professional interest, which are afterwards brought before the Council. The Society's official address is now 91, Scottish Provident Buildings, Donegall Square West, Belfast. Mr. J. L. Magee, C.A., has been appointed paid secretary.

MINUTES. VII.

At the Seventh General Meeting (Ordinary) of the Session 1920-21, held Monday, 31st January, 1921, at 8 p.m.—Present: Mr. John W. Simpson, President in the Chair; 42 Fellows (including 12 members of the Council); 34 Associates, including 2 members of the Council; 6 Licentiates, 2 Hon. Associates, and several visitors—the Minutes of the Meeting held 17th January, 1921, having been published in the JOURNAL, were taken as read and signed as correct.

The Secretary announced that the Council had nominated for election to the various classes of membership the gentlemen whose names were published in the JOURNAL for the 8th January.*

The President announced that the Council proposed to submit to His Majesty the King the name of Sir Edwin Landseer Lutyens, R.A. [F.], as a fit recipient for the Royal Gold Medal in Architecture for the current year.

The President having delivered the Annual Address to STUDENTS, a vote of thanks was passed to him by acclamation on the motion of Sir Amherst Selby-Bigge, Bt., K.C.B., Permanent Secretary of the Board of Education, seconded by Lady Banister Fletcher.

The President having responded, Mr. H. P. Burke Downing, F.S.A. [F.], read a REVIEW OF THE WORKS SUBMITTED FOR THE PRIZES AND STUDENTSHIPS 1921.

On the motion of the President, a vote of thanks was passed to Mr. Burke Downing by acclamation, and was briefly responded to.

The Presentation of Prizes was then made as follows in accordance with the Deed of Award:—

R.I.B.A. Silver Medal (Drawings) and Cheque for £50 to Mr. J. H. Odom [F.] for his measured drawings of King Charles Block, Greenwich Hospital, submitted under the motto "Axax"; Certificate of Hon. Mention to Mr. C. Leckenby (represented by Mr. A. Ure) for his measured drawings of the Temple of Bacchus, Baalbek, submitted under the motto "Sapper."

The Tite Certificate to Mr. Gordon H. G. Holt for his design for an Italian Villa inspired by Pliny's description in his letter to Gallus, submitted under the motto "Zut! c'est pas de Futurisme"; Certificate of Hon. Mention to Mr. A. G. Paton [F.] (represented by Mr. H. D. Tilburn) for his design submitted under the motto "Gagan."

* The names and addresses of the candidates, together with the names of their proposers, are printed in the present issue under the heading "Notices."

The Godwin Silver Medal to Mr. Charles B. Pearson [*F.*], he being the successful candidate for the Godwin Bursary and Wimpers Bequest 1921.

The Godwin Silver Medal to Mr. Herbert Austen Hall [*F.*], Godwin Bursar for 1919.

The Pugin Silver Medal and Cheque for £30 to Mr. H. St. John Harrison, Pugin Student for 1920.

The proceedings closed at 10 p.m.

Conditions of Contract Committee.

In the *Kalendar* recently issued Mr. Percival M. Fraser's name was omitted by mistake from the list of members forming this Committee. The following is the complete list:—The President, the Hon. Secretary, Messrs. H. T. Buckland, Max Clarke, Percival M. Fraser, J. Alfred Gotch, W. E. Riley, H. D. Seales-Wood, W. Henry White.

Honours, Appointments, Professional Notices, &c.

Sir Bamster Fletcher [*F.*] has been elected Chairman of the City Lands Committee, or "Chief Commoner" of the Corporation.

Mr. C. F. W. Denmg [*F.*], R.W.A., of Bristol, has been elected Artists' Chairman of the Royal West of England Academy, in succession to the late Mr. G. A. W. T. Armstrong, R.B.A., R.W.A.

Messrs. T. F. Shephard [*F.*] and Egerton L. Bower [*A.*] have removed from the Royal Liver Building to Liberty Buildings, School Lane, Liverpool. (Telephone, Royal 1628.)

NOTICES.

At the NINTH GENERAL MEETING (BUSINESS), to be held Monday, 28th February, 1921, an election of candidates for membership will take place. The names and addresses of the candidates, together with the names of their proposers, are as follows:

AS FELLOW

DEWHURST: JOHN CADWALLADER (1897), Engineer's Office, Inchicore, Dublin; 27 Eglinton Road, Donnybrook, Dublin. Proposed by Professor A. E. Richardson, Professor S. D. Adshard, Stanley C. Remsey.

AS ASSOCIATES (53)

NOTE.—The three candidates marked * have been the subject of special consideration by the Council, being put forward as special cases for consideration with recommendations Nos. 2, 3, and 4 passed at the Conference with representatives of Allied Societies on 6th January 1920, and unanimously approved by the Council on 24th February 1920. (*JOURNAL*, 25th February 1920, pp. 178-79.)

ALLDREDGE: CHARLES DONALD (Special War Examination), Hawthornes, Cambridge Road, Bridlington. Proposed by W. S. Walker, J. M. Dosson, L. Kitchen.

BALMER: STANLEY (Special War Examination), 69 Alexander Sweep, Clapham Common, S.W.11. Proposed by F. A. Powell, James S. Gibson, and N. Prentice.

BURTON BENJAMIN HORACE (Special War Examination), 28 Old Burlington Street, W.1. Proposed by W. W. Scott-Moncrieff, Alfred Cox, and the Council.

* BROWN: JOHN, Lieut.-Col., D.L., D.S.O. [18-1900, Special War Exemption], 80 Abington Street, Northampton. Proposed by J. W. Fisher, W. Talbot-Brown, J. Alfred Gotch, F.S.A.

BURSTROPE: STANLEY GODWIN (Special War Examination), 13 Stout Road, Christchurch, Hants. Proposed by Charles E. Varndell, Robert Atkinson, E. Stanley Hall.

BURKE: JOHN EDWARD (Special War Examination), 120 North Circular Road, Dublin. Proposed by R. M. Butler, Professor A. E. Richardson, Martin S. Briggs.

BURRIDGE: HAROLD (Special War Examination), 7 Priory Road, West Hill, Hastings. Proposed by Maurice E. Webb, D.S.O., G. Gilbert Scott, A.R.A., E. Stanley Hall.

BURNELL: PERCY VINIAN (Special War Examination), 18 Redcliffe Gardens, S.W.10. Proposed by Robert Atkinson, Geoffrey Lucas, E. Stanley Hall.

CLARKSON: GEORGE FLINT (Special War Examination), 32 Great Ormond Street, W.C.1. Proposed by A. Dundas Smith, Sidney K. Greenleaf, W. T. Walker.

COLLINS: HENRY RICHARD (Special War Examination), 26 Bateman Street, Cambridge. Proposed by the Council.

COURTNEY: WALTER NORMAN (Special War Examination), 19 Palace Avenue, Paignton, Devon. Proposed by H. Lionel Thornely, B. Priestley Slater, J. Arthur Lucas.

DANCERFIELD: BERNARD, M.C. (Special War Examination), "Eastgate," 25 Lyndhurst Gardens, Church End, Finchley, N.3. Proposed by Professor A. E. Richardson, C. Lovett Gull, Alfred Cox.

DANCERFIELD: PAUL (Special War Examination), Westcott, Battlefield Road, St. Albans. Proposed by Robert Atkinson, E. Stanley Hall, Geoffrey Lucas.

DAVIDSON: SAMUEL (Special War Examination), 8 George King Street, Edinburgh. Proposed by Sir R. Rowland Anderson, Maurice E. Webb, D.S.O., A. Lorne Campbell.

DAVIDSON: WILLIAM ALEXANDER (Special War Examination), 31 Harrington Road, Aberdeen. Proposed by George Watt, J. A. O. Allan, A. Marshall Mackenzie.

DIXON: PERCY SIDNEY (Special War Examination), 128 Alcegon Road, Lewisham, S.E.13. Proposed by Robert Atkinson, E. Stanley Hall, Geoffrey Lucas.

EARNshaw: HAROLD HICKS (Special War Examination), 23 Massie Street, Chiddle, Cheshire. Proposed by M. Wheeler, Percy S. Worthington, Francis Jones.

FELPHAM: STANLEY GRAHNS (Special War Examination), 126 Broadwater Road, Brighthelm, Brighton. Proposed by W. B. Jaggard and the Council.

GRAY: FRANK GEORGE (Special War Examination), 20 Lydhurst Avenue, Streatham Hill, S.W.2. Proposed by W. E. Riley, G. Topham Forrest, E. Kevin's Prochass.

GORDON: ALEXANDER (Special War Examination), 24 Muggeross Road, Blackburn, Lancashire. Proposed by J. A. O. Allan, George Watt, A. Marshall Mackenzie.

GRIMMANE: REGINALD THOMAS (Special War Examination), Melrose, 164 Hornsey Lane, Highgate, N.6. Proposed by John Coleridge, Alfred Cox, Helene Farquharson.

HOLT: FELIX (Special War Examination), 14 Cock Street, Liverpool. Proposed by Arnold Thornely, Hastwell Grayson, L. Tahesin Rees.

HORN: FREDERICK JOHN (Special War Examination), 19 Albany Street, Hall. Proposed by W. S. Walker, J. M. Dosson, L. Kitchen.

HOWARD: STANLEY BOOTHBY (Special War Examination), 23 Catherine Street, Liverpool. Proposed by W. E. Willink, L. Tahesin Rees, Hastwell Grayson.

HUGHES: HENRY CASPER (Special War Examination), 4 Trumpington Street, Cambridge. Proposed by Professor E. S. Prior, A.R.A., J. H. Brewerton, Leslie T. Moore.

JACKSON: BASIL HIPPISELY (Special War Examination), Eagle House, Wimbledon. Proposed by Sir Reginald Blomfield, R.A., Maurice E. Webb, D.S.O., H. H. Statham.

KAYE: STEWART (Special War Examination), 16 Rutland Square, Edinburgh. Proposed by A. Lorne Campbell, John Wilson, H. O. Farbolton.

KEAPNE: LESLIE HAMILTON [Special War Examination], 2 Rothwell Street, Regent's Park, N.W. Proposed by Sir John Burnet, R.S.A., and the Council.

KLEP: ROBERT SIDNEY [Special War Examination], Grafton House, 2 Golden Square, W.1. Proposed by R. H. Kerr, R. G. D. Kerr, R.S.A., Lewis Solomon.

LUBB: JOSEPH HAYDN [Special War Examination], 67 Beatham York. Proposed by William H. Thorp, J. Wycliff Common, W. G. G. Hall, O.B.E.

MACHURSON: DONALD [Special War Examination], 17 The Hawthorns, Regent's Park Road, Finchley, N. Proposed by Robert Atkinson, Geoffrey Lucas, E. Stanley Hall.

MALLARD: FRANCIS ALAN [Special War Examination], 14 Rothwell Street, Regent's Park, N.W.1. Proposed by Geoffrey Lucas, Robert Atkinson, E. Stanley Hall.

MANN: STEPHEN [Special War Examination], Blene 20, Wigton, Cumberland. Proposed by Geo. Dale Oliver, J. H. Maitland, J. W. Benson.

NIGHTINGALE: FREDERICK BAYLESS [Special War Examination], 47 West Side, Wandsworth Common, S.W. Proposed by Sir Edwin Lutyens, R.A., William A. Pitt, Professor Bedford Pitt.

PIEKIOLD: ASTON CHARLES [Special War Examination], 108 Fernside Road, Wandsworth Common, S.W.12. Proposed by G. Topham Frost, Maurice F. Webb, D.S.O., Professor Bedford Pitt.

RIDE: ALEXANDER WILLIAM DOUGLAS, R.A. [Special War Examination], Broom Cottage, Gay St., Gower's Cross. Proposed by Frederick Paterson, A.R.H.A., Albert E. Murray, R.H.A., Fred G. Marks.

RICHARDSON: FRANK [Special War Examination], Gate-lands House, Twickenham, Camberley, Surrey. Proposed by Francis Jones, A. W. Hemmings, Isaac Taylor.

RICKALSON: JOHN [Special War Examination], Embsleigh House, 32 Deodar Avenue, H.H. Proposed by L. Kitchen, Sir W. Alfred Gordon, B. S. Jacobs.

ROSS: LESLIE OWEN [Special War Examination], 31 Montrose Place, Pelham Road, S.W.1. Proposed by W. G. Wilson, George Elington, Alfred W. S. Cross.

SANDERS: JOHN EDWARD [Special War Examination], 208 Beaker Street, Liverpool. Proposed by Professor C. H. Reilly, O.B.E., and the Council.

*SHORT: ERNEST WILLIAM GIBSON, Lieutenant, 1889, Special War Examination, Powder Lodge, Soldiers Road, Forest Hill, S.E.23. Proposed by Sir John Parry, William Brock, Arthur H. Reid.

SILVER: EDWIN RUSSELL [Special War Examination], 31 Rockfield Avenue, Muswell Hill, N.10. Proposed by H. Austen Hall, Robert Atkinson, Henry M. Fletcher.

SMITH: JOSEPH STEPHENSON [Special War Examination], 2 Stumpdown Avenue, Ludlow, Shropshire. Proposed by Chas. B. Hickton, W. J. Hall, A. F. Watson.

THOMAS: HUBERT ARTHUR [Special War Examination], 51 North John Street, Liverpool. Proposed by Frank G. Briggs, T. Thomas Ross, Arnold Thornely.

WALKER: FREDERICK ARTHUR [Special War Examination], 8 Buckingdon Street, Adelphi, W.C.2. Proposed by W. Bryan, Harry Redfern, J. Gordon Allen.

*WEBSTER: FRANCIS POOLE, 18, 1909, Special War Examination, 12 Montgomery Road, Sherrow, Sheffield. Proposed by the Council.

WHITBURN: ALGERNON STUART [Special War Examination], Elm Grove, Woking, Surrey. Proposed by Robert Atkinson, E. Stanley Hall, Geoffrey Lucas.

WHITLEY: CHARLES [Special War Examination], 69A King's Road, Chelsea, S.W. Proposed by T. E. W. Grant, Courtenay M. Chickner, Alfred Cox.

WHITE-COOPER: ROBERT CHARLES [Special War Examination], 22 Redgrave Street, Earl's Court, S.W.10. Proposed by Arthur Strutt, R.S.A., Professor A. L. Richardson, Professor S. D. Adfield.

WILSON: HARVEY ERNEST [Special War Examination], 10 Lordship Park, N.10. Proposed by Professor A. F. Richardson, Walter Newman, Henry A. Ashley.

WOOD: WILLIAM WALLER [Special War Examination], 154 Forest Hill Road, Forest Hill, S.E.23. Proposed by Robert Atkinson, Geoffrey Lucas, E. Stanley Hall.

WOODHOUSE: BRIAN WILLIAM [S. 1911, Special War Examination], 35 Bracken Street, Hackney, E.10, Yorks. Proposed by Geo. Dale Oliver, J. W. Bennett, J. H. Maitland.

WORMUM: GEORGE GRAY [Special War Examination], 7 Gray's Inn Place, W.C. Proposed by Arthur Keen, Ernest Newton, C.B.E., R.A., John W. Simpson.

AS HONORARY CORRESPONDENT MEMBER

LOUVEL: ALEXIS, President of the Société des Architectes Diplômés par le Gouvernement, 59, Place de Grenelle, Paris. Proposed by the Council.

AS HONORARY ASSOCIATE

PIERCE: WILLIAM T., Editor of *The Builder*, 14 Catharine Street, Strand, W.C. Proposed by the Council.

At the same meeting the following business will also be brought forward:—

Chairman to submit New Model Conditions for Housing Competitions to include in the R.I.B.A. Regulations for Competitions—details will be published in the JOURNAL for 19th February.

Chairman to submit the following proposals involving amendment of the By-laws:—

as Honorary Associateship—Membership not to exceed sixty; entrance fee and subscription to be abolished; privilege of voting in the election of the Council and Standing Committees to be abolished.

as Proposed Fellowship—Qualifying period of membership to be reduced to 25 years.

as Subscribers—A new class to be created, under the name of "Subscribers," who will be non-professional, have no privileges of membership, and no power to use in any indicating membership of the R.I.B.A. Subscription to be one guinea per annum. They would be entitled to use the Library, to attend Ordinary General Meetings, and to receive a copy of the Annual Report.

THE EIGHTH GENERAL MEETING (ORDINARY) of the Session 1920-21 will be held Monday, 14th February, 1921, at 8 p.m. for the following purposes:—

To read the Minutes of the Meeting held 31st January; formally to admit members attending for the first time since their election.

To read the following Paper:

THE CUNARD BUILDING

By W. E. WILLINK, M.A. [F.R.I.B.A.]

ARTIST (29) at present in charge of large drawing office in India desires change to London, owing to climate. Could be trusted shortly to produce reasonable salary and prospects assured. Previous experience and training in London. Full particulars and references. Apply to Box 421, care of Secretary R.I.B.A., 9, Conduit Street, London.

ARCHITECTURAL ASSISTANT wanted at Shanghai. Age 30 or under, salary £500 a year, free passage, travelling, salary £50. A prospect excellent for a brilliant man. Address: Mr. H. Williams, 36 Lamb Street, E.C.4.

Good Room wanted in an architect's office, West End or Westminster. Apply Box 284, Secretary R.I.B.A., 9, Conduit Street, W.

ARTIST with considerable experience of factory and domestic work, also design work in his own office or outside. Apply Box 221, Secretary R.I.B.A., 9, Conduit Street, W.

LEADS School of ART. Assistant wanted for studio work and for supervising junior students' work. Suitable from a Recognized School would be a suitable candidate. Address: The Director, Department of Architecture, Leeds School of Art.



THE CUNARD BUILDING, LIVERPOOL

THE CUNARD BUILDING.

By W. E. WILLINK, M.A. Cantab. [F.]

Read before the Royal Institute of British Architects, Monday, 14th February 1921.

GRATELY do I value, need I say it, the invitation which accounts for my presence here to-day; for it seems to indicate, on the part of men well qualified to express an opinion, a certain approval of the result of our work on the Cunard Building. For fear lest their approval should encourage hopes which cannot be realised, let me at once, however, put this building into its proper place. It has no claim whatever to be considered as a work of imagination: it is simply an office building, large indeed in dimensions, and the home of many firms of world-wide interests, but merely an office building, in which economy, practical utility, light, comfort, and convenience are primary considerations. These qualities I think I may claim it does possess, and, as a humble tenant, I ought to know. If it is found to possess others less easy to check or to demonstrate I need scarcely say it is a source of profound gratification to me.

And yet an unskilled Paper writer like myself must be allowed to feel rather an acute diffidence when addressing such an audience as this. At the best of times this would be so, but the difficulty is multiplied by x when the subject is a building with which I have been so closely connected. And there are two reasons for this. The first is that my very familiarity with my subject is such that I find some little difficulty in choosing things which seem to be worth mentioning. I have often noticed this rather peculiar point. During the war, for instance, the least interesting people to talk to about it were those

who were actually engaged in it and were home on leave ; all the local colour, the routine, the annoyances, big and little, had become so much like the air they breathed that it never occurred to them that the recital of them could contain any interest to people at home who had never known them—a want of imagination, I suppose. The second lies in the unfortunate fact that anyone who appears to appreciate his own work, or even doesn't say he doesn't, lays himself open to the charge of a slight lack of modesty.

The first difficulty remains, and I have grave doubts as to whether anything I can tell you can, either in the manner of telling it or in the substance of the thing told, prove to be of sufficient interest even to hold your attention. The second, however, I think I can get over. The man to whom this honour should have fallen is not myself, but my late partner, Philip Thicknesse, who, to the deep grief and immeasurable loss of all who knew him in any capacity, died in the early spring of last year. Unlike some partners, who carry on two or more practices under the one roof, or others who strictly define the department of the work for which each is responsible, we always, during the thirty-five years of our partnership, endeavoured to be jointly responsible for all that passed through the office, and though in such conditions it is impossible to say which partner is responsible for any particular bit of design or business, it is a fact which I should be the last to dispute, that to him, and not to me, is to be attributed by far the greater part of such credit as belongs to this structure.

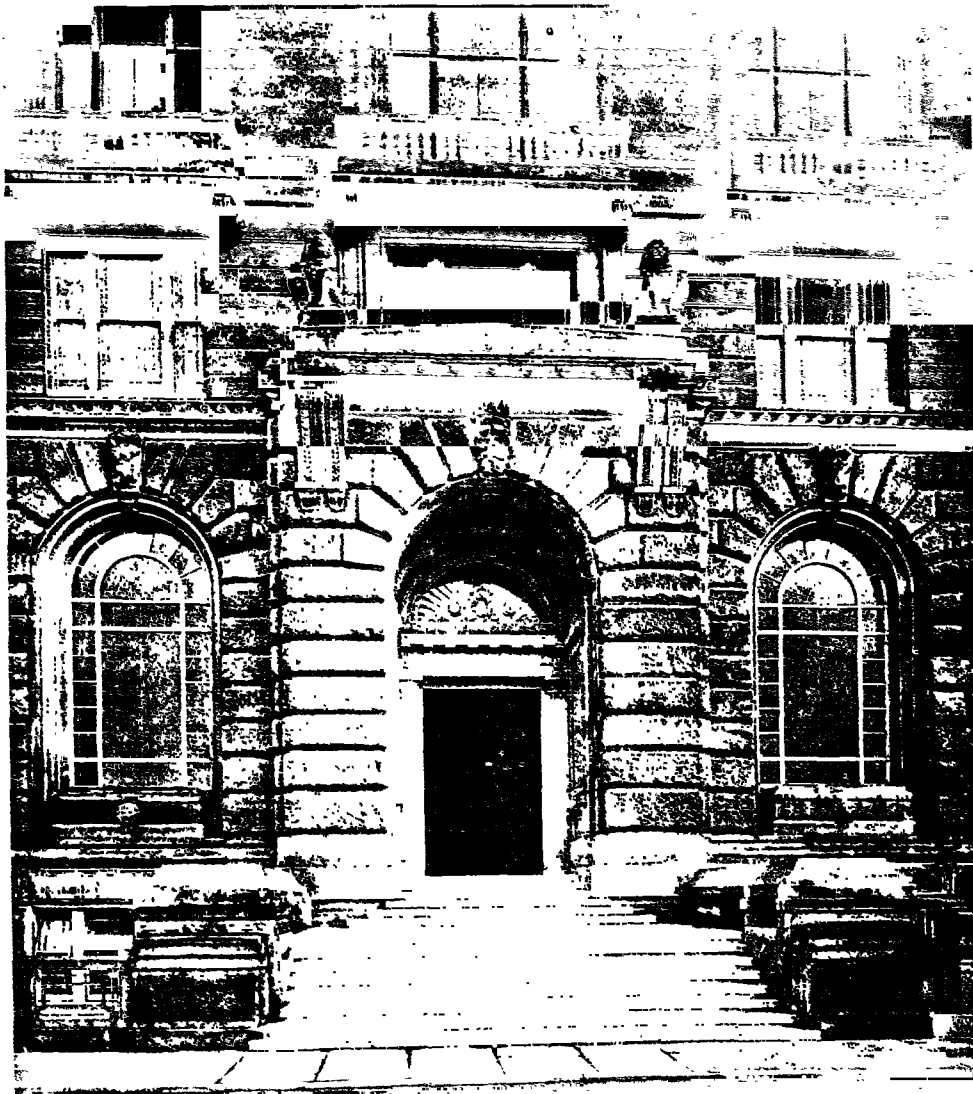
Then, again, I should like to mention the valued advice and assistance of Messrs. Mewes and Davis, who, in the person of Mr. Arthur Davis, were appointed by the Cunard Company to act as advisory architects. It was, indeed, due to Mr. Davis that the Italian Renaissance was adopted as the guiding style of the exterior, and his excellent judgment and power of design were of constant service to us both at the outset of operations and, as occasion arose, during the progress of the work. I should also be lacking in justice if I failed to acknowledge the work of Mr. J. Watson Cabré, to whose robust and vigorous handling most of the detailing was committed until in 1916 he went off to the war. So I think I may claim freedom from reproach; for even if I were to express satisfaction with anything for which I had been actually responsible the critic could not know that it was so, and if he thought it was, the chances are he would be wrong. But enough of introduction.

The site of the Cunard Building is an interesting one, bearing in mind, of course, the fact that Liverpool is for all practical purposes a modern town. The slide will show how the land lay in the year 1725, when there was only one dock in existence, that one being on the site of the Pool, from which the city takes its name. You will see St. Nicholas' Church, with its graveyard running right down to the water. Next is a plan of some 35 years later, showing the then proposed George's Dock, which, as you will notice, was really a bit of the open estuary of the Mersey enclosed by a quay wall. This dock was improved and widened in 1825, and remained in use, though a use of less and less importance, till it was closed in 1900 as being only available for small vessels and of no great value to the trade of the port. The site of the dock, with the exception of a portion retained for their own use, was sold by the Dock Board to the Corporation, and the Corporation at once set to work to develop it by continuing across it the two streets which butted on to it—Water Street and Brunswick Street. Thus the site was divided into three portions, each appropriate for the erection of an important building. Now here was a chance such as is seldom offered to a great city. The landing-stage, almost opposite the three sites, is the place where vast numbers of travellers from all countries, notably the United States, first find themselves on the soil of Europe, and how could there have been a finer opportunity for the worthy welcoming of our guests?

The Dock Board made the first step and erected a very fine building for their offices, but one, unfortunately, too low, in my opinion, for modern requirements and possibilities. The Corporation sold the other end site to the Royal Liver Insurance Company, with the condition that any building put upon it must resemble the Dock Board Offices in height, material and design. How this condition was evaded it is not necessary for me to explain, but evaded it was, and to the lasting detriment of the

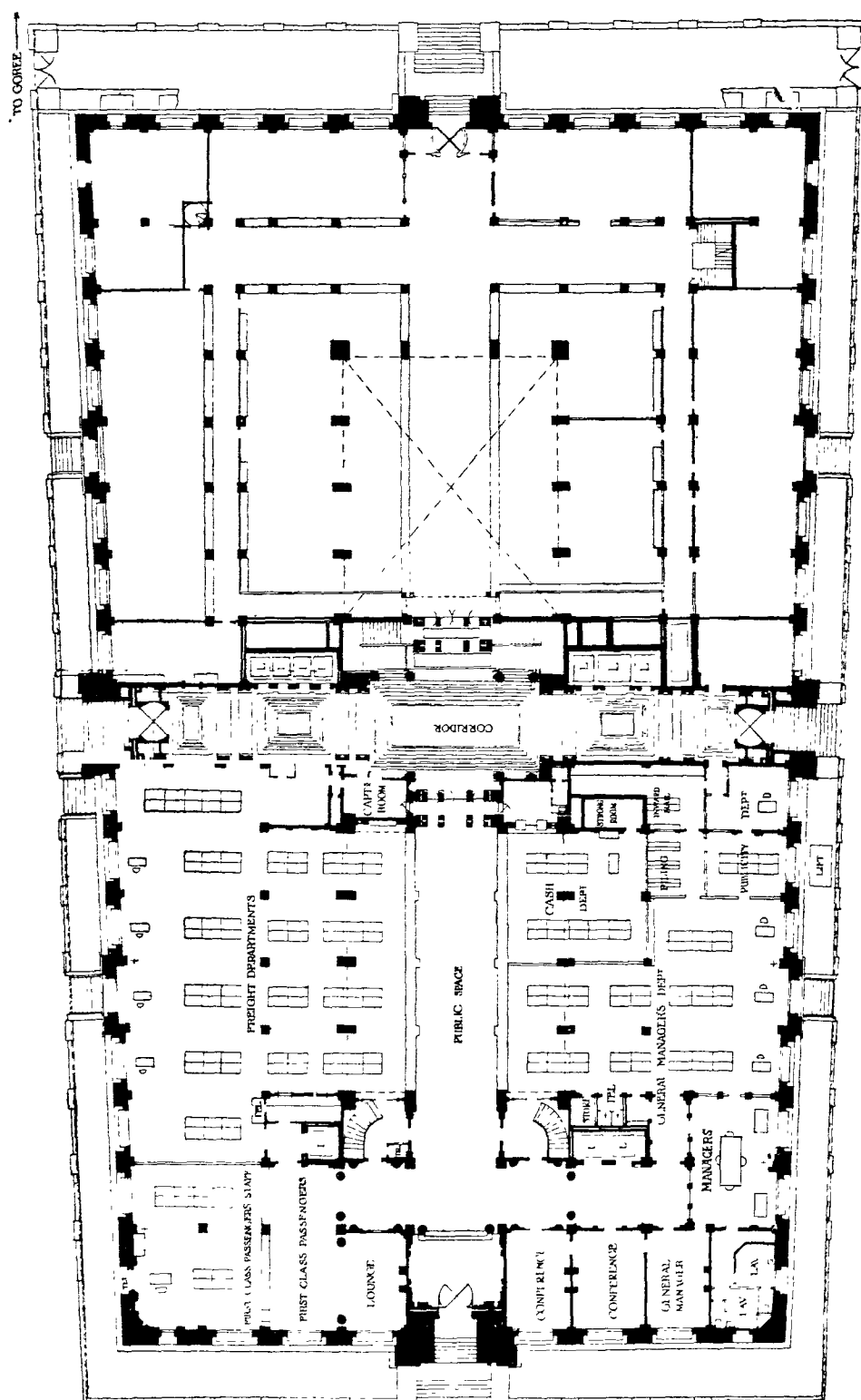
city. This is a sore subject to all the children of light in Liverpool, and I do not wish to dwell upon it, except by pointing out the extreme difficulty presented by the existence of these two buildings to anyone who had to design a third to stand between them. We thought then, and I myself have not changed my opinion, that the only possible thing to do was to put up a building of a design in all respects different from both, and this is what was done.

There was one initial difficulty with which we were faced as soon as we got on to the site. It was,



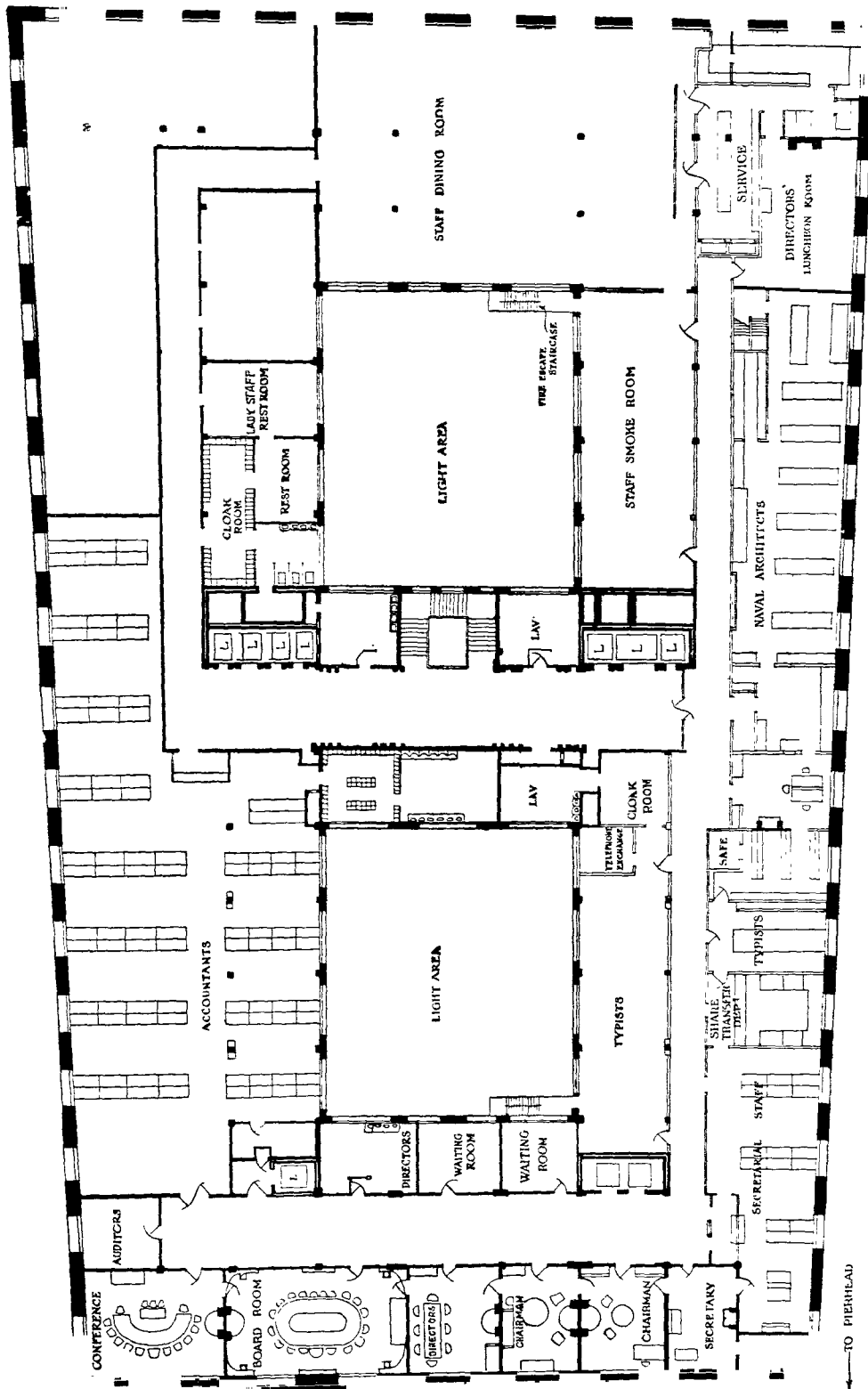
DETAIL OF MAIN ENTRANCE, CUNARD BUILDING.

as you will have grasped, reclaimed from the estuary : and, no doubt, it did not occur to our forefathers that there would ever be any reason why the reclaiming walls should be watertight. Anyhow, they did not make them so, and when we began to devise things there were several feet of water in the old dock ; in fact, the filtration of the water backwards and forwards brought it about that the water stood at



By courtesy of the ARCHITECTS' JOURNAL

PLAN OF GROUND FLOOR, CUNARD BUILDING



TO CORNER
By courtesy of the ARCHITECT'S JOURNAL.

PLAN OF FIFTH FLOOR, CUNARD BUILDING.

about mean tide level. Great discomfort was thereby caused to our neighbours. We naturally wished to have the whole of the cubic contents of the building available for use, and the question was how to do it. The first idea which came to us was the construction of a great watertight tank, which would keep our section dry and leave our neighbours to bear their own burden. We found, however, that the tank would be very costly, and moreover that we could not count on permanent efficiency, even though it might be quite sound at first: but the chief argument against it was that the whole weight of the building would not be equal to the weight of the water displaced, supposing it to rise to a level outside which was not impossible. We could not feel quite happy in the anticipation of a building floating on the waters, so we had to fall back on pumps. They do their work in an entirely satisfactory manner, satisfactory to our neighbours as well as to ourselves. It was one of those cases in which to benefit ourselves we could not help being of service to others. The service has never, so far as I know, been acknowledged, but one cannot help feeling that the Cunard Company has thereby acquired merit.

One other little matter connected with the site. When originally put into our hands the plot was quite irregular in shape, none of the four sides having any relation with any other, the Brun-wick Street side being considerably longer than that in Water Street. On application to a sympathetic Corporation, we received permission to swing the building lines at the two ends round on their centres so as to make a right angle with the axis of the building, and thus obtained the present symmetrical plan, convenient for all purposes. This was really a very great advantage, one experienced by very few designers of city buildings, who usually must perforce conform with building lines, however awkward they may be.

Forgive me for dwelling so long on the site. I could go on for some time talking of nothing else, notably the good fortune which gave us an island site, with no restrictions as to ancient lights, with wide spaces all round it. It is not often that such an opportunity is granted to an architect, and the only drawback is that we have none of the stock excuses to put forward for any inadequacy in the result. So much for the site.

The construction of the building, perhaps, is the next thing to claim attention.

The dock floor we found—under the accumulations of a century and a half, few of which were of any interest except a considerable amount of china clay, no doubt connected with the Herculaneum potteries—to be the boulder clay which overlays the new red sandstone over the whole of the Liverpool district. Though this sort of clay is for ordinary weights a very excellent foundation, we felt more security in the underlying rock, and all the piers were taken down to it. At the east end this only involved some 2 feet 6 inches of excavation, but as the rock slopes down towards the river the depth of the excavation for the piers at the river end was about 20 feet, so that at that end work began at a depth of some fifty feet below pavement level. From the rock up to the basement mezzanine the piers were built in mass concrete; at that level the reinforced concrete began. I need scarcely enlarge upon the merits of reinforced concrete. One of its chief drawbacks is one which affects not us, but maybe our grandchildren. When it is decided to destroy the Cunard Building to make way for a 30-storey building on its site, I feel sorry for the contractor who has to do it. I suppose, however, one could hardly expect a building proprietor to regard as an important quality in his building that facility of demolition which might appeal to his great-grandson.

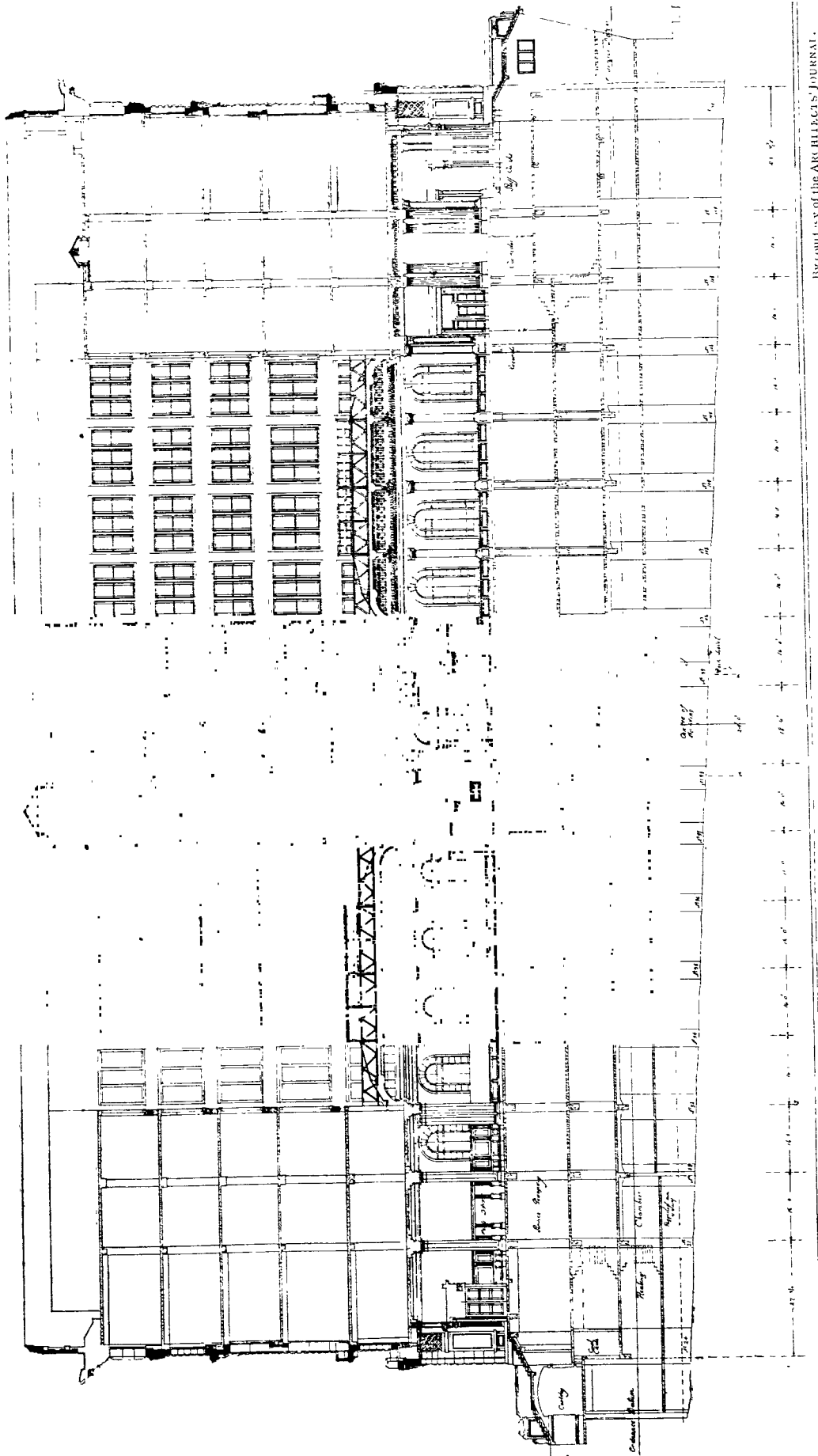
We were very fortunate in the aggregate used for the reinforced concrete: instead of granite chippings we had chippings of very fine and hard sandstone, which had two advantages, for they were quite materially lighter than granite and consequently reduced the weight borne by the lower storey piers, and also were free from the usual drawback to heavy and hard aggregate, which tends to sink down to the bottom of each layer as it is put on, and thus to cause unevenness in the quality of the material. The tests of our material were quite unusually good.

I do not know that there is anything very special in the reinforced concrete of this building, but I think you might be interested in two matters—the flooring and the cornice construction.

The Cunard Building
10° South Longitude 82° East

10° South Longitude 82° East

10° South Longitude 82° East



LONGITUDINAL SECTION, CUNARD BUILDING.

By courtesy of the ARCHITECTS' JOURNAL.

The general flooring of the building is based upon a method first introduced and much used by the Trussed Concrete Steel Company. From main beam to main beam, in this case spans of 16 feet or so, are carried small reinforced concrete beams spaced 2 feet centres. Between these small beams are placed in position corrugated iron formes the top of which comes to 2 inches below what will be the top of the beams. The whole, small beams included, is then filled in with fine concrete all slightly reinforced. The top of this concrete is some $1\frac{1}{2}$ inch below the finished floor level, the difference being made up with cement rendering brought to a fine surface. Then come cork slabs, and finally linoleum. The slabs serve two purposes, for they help to give the linoleum floor resilience and warmth, and at the same time provide a convenient and easy way of leading wires for light, telephones, bells and the like, from the walls to interior positions. Through the small beams steel tubes are concreted in, for the purpose of conducting electric light wires without disturbance of the plaster ceiling, and on the sole of the small beams are boards of equal width, fixed by means of hoop-iron placed in position before concreting, and these serve for the reception of fibrous ceiling slabs. The corrugated iron formes were so arranged that after the removal of the sheeting on which they stood they could be detached and used again, and most of them were so re-used three or four times. This floor has been found to be very successful, and has stood all tests, up to the moving of heavy safes—which, of course, in their permanent positions always stand on beams—and except when some temporary annoyance has been caused by the fitting up of offices overhead, we have never heard any complaint on the score of noise.

As to the cornice, it is evident that the style adopted demanded a very heavy cornice : as a matter of fact the cornice actually projects nearly 7 feet from the wall face. The construction of such a cornice was at first a puzzling problem, for we very naturally wished to have it all of stone. If constructed in the usual way enormous stones would have been needed, especially at the corners of the building, stones far bigger than we could obtain. So a system of reinforced concrete cantilevers was devised, anchored back to the main beams and projecting enough to render possible the use of none but stones of a very ordinary size. On the top of this cornice, by the way, there is a delightful walk all round the building ; delightful, that is, for those who are able to enjoy it—some people cannot.

I have now, perhaps, gone as far as I need in describing what you cannot see, though there are, of course, various expedients in detail connected with ventilation, drainage, heating, etc., which gave rise to a vast amount of thought and ingenuity. On these I hardly think you would care for me to dwell, and I pass to what is, I hope, more interesting—what you do see.

As far as we have got, the building may be said to consist of gaunt piers, beams and floors of reinforced concrete, all strictly useful and adapted to the purposes they had to serve. So far it must be admitted that the beauty which is inseparable from utility alone is of an unsatisfying character. I do not, of course, mean that the whole of the concrete was finished before the stone facing was begun. On the contrary, in the upper storeys the concrete was going on while the facing of the lower was proceeding. So that perhaps we did not give utility a fair chance of showing what she could do in the way of beauty. A few slides will show the progress of the work.

The covering is of Portland stone, and there are a few points about it which, I think, might be interesting. To begin with, when we visited the quarries, as we did fairly often, we discovered that the Whitbed, which alone is generally used in outside work, is overlaid in the quarry with a thick bed of Roach. This is a shelly, rough stone, which cannot be worked to a fine face, and is consequently seldom, if ever, used ; but it is very hard and, without any doubt, as durable as Whitbed, and we felt it to be the very thing for the rock-faced, battered base of the building ; and we have had no reason to regret having used it. One regret, however, we did feel, and that is that this rock-faced work was sludged over with the rest of the stone work. On plain surfaces the sludge is easily removed, but on the rock face it is not, and it had to be chiselled off, much to the detriment of all the sharp arrises which give crispness and character to such treatment. Rock-faced work should be protected, if at all, in some other way.

The treatment of the surfaces gave rise to a good deal of thought, for we wished to get as much appropriate variety as we could. The spaces between the basement windows were made of flat rock-faced stones, in the hope that we should get the effect of huge blocks carrying the whole structure. Of course, we did not succeed, but that was of no great moment, since it was not a very necessary feature in the design. Then came the heavily projecting, rock-faced batter, in which, though we made no attempt at continuity in the coursing, the vertical joints were less marked than the beds. The strongly marked rustication at the angles, above the batter, is built with coarsely sparrow-picked blocks, the holes being some 4 or 5 inches apart. Then the whole storey above the batter, the first floor, is,



MAIN HALL, CUNARD BUILDING, LOOKING NORTH

between the rusticated angles, built of stones grooved horizontally with fine lines, and above that we have the ordinary rubbed surface. These variations do, I think, add some little interest to the design, and the way in which the material is affected by the elements in a soot-laden atmosphere gives some guarantee that the effect will not be ephemeral. So much for the material of the outside.

The planning of the building is very simple. An important doorway in the centre of each side gives access to a main corridor dividing the block into two halves equal and similar in all but width. On each side of this corridor on all floors above the ground is accommodation of one bay, 16 feet in width, practically all given up to staircase, lifts and lavatories, &c., for principals and staff, men and women. The staircase is worth mentioning, for since the introduction of lifts there has been a tendency to relegate the stairs to a very secondary place, making them narrow, dark, and inconvenient. By

putting in a really good staircase you not only give opportunity for easy and quick communication between floor and floor, but you add light and cheerfulness to each corridor and good chance of ventilation. The lavatories are drained into pipe ducts, 6 feet by 2 feet 6 inches, of which there are four running from the bottom to the top of the building, where they are open to the air, and thus out of doors, satisfying sanitary requirements. On the four lowest floors, including the ground floor, the whole of the space covered by the building is utilised, but on all the floors above the ground floor each half of the building has in the middle of it an open area, about 60 feet by 50 feet, lined with white tiles, giving excellent light to the offices—about 55 feet wide between the areas and the streets. On the top floor of all there are all sorts of buildings, quite irregular in size and height—lift-houses, restaurant, kitchens and larders, and a couple of offices. Hence the plain screen wall above the cornice which hides all the diversified outlines from almost all except airmen, and they, after all, see many worse things.

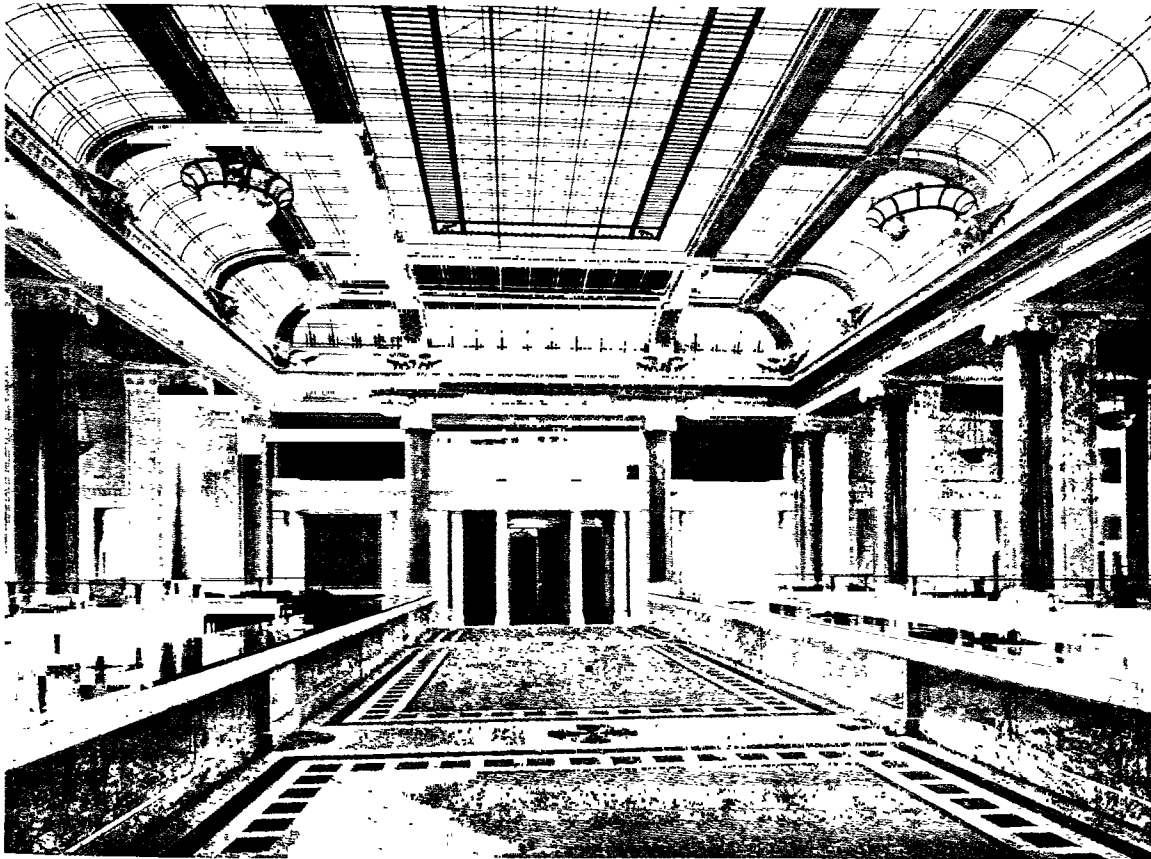
As to the general section and the proportions of the building: the ground floor is some 8 feet above the pavement, so as to allow for good windows to the lower ground floor rooms, some of which are of considerable importance. The ground floor is 23 feet floor to floor, all floors above it 14 feet, except the second floor, which is 16 feet. The height of the cornice is 110 feet above the pavement, and the screen wall about 10 feet more. The total length of the building is 330 feet, the breadth at the pier-head end 170 feet, and at the city end 200 feet. I do not think you would care for any other figures.

And now a few words about the design. Speaking quite generally the style of the exterior is, as I hope you will agree, Italian Renaissance, though I do not claim that we could give chapter and verse for all the details. This style seems to us the best that we could have adopted for our purposes. Both the Italian palace and this building are essentially street buildings and island buildings. And the parallel between the Palace of the great Italian noble of the fifteenth century and the offices of the great steamship company of the twentieth, though it may seem a little fanciful to say so, is not difficult to draw. Both have to provide accommodation for large numbers of retainers, clients and connections, and there is a distinct similarity between the uses of the cortile, open in Italy, covered in England, in the two cases. As to the exterior, the strong rock-faced base, battered or vertical, is common: you will recall many instances, notably the Palazzo Pollini, the finest example of the battered treatment. The long series of circular-headed windows broken in the centre of each façade by a projecting doorway—this latter being a divergence from the Italian custom—is frequently found. Often in Italy do the ground and mezzanine floors come under the main floor, and the main floor—the *Piano Nobile*—in this case represented by the second and third floors linked together by canopies, architraves and balustrades, is universal. Then comes a necessary intermediate floor, a frieze large enough to contain the fifth floor windows, and then the cornice and the parapet wall. Allowance must, of course, be claimed for the relatively large number of floors required, and for their comparatively low height; and also for the larger number of windows required and their breadth, and the consequent small proportion of plain wall surface. These very important differences force one to abandon any claim to call the style pure Italian Renaissance, and to describe the design merely as an adaptation of that noble style to modern requirements and a somewhat sunless climate.

As to the details. A distinguished critic has observed that he finds in them items not thoroughly digested, showing Greek, Italian and French influence. I am sorry for that, for insufficient digestion is generally accompanied by pain, and in this case it is the wrong person who suffers. But really, Italian Renaissance is a style in which you can find pretty nearly anything you look for, from Greek—notably in the work of that great artist Peruzzi—to features which when modified we have come to class as French, and our desire was to provide details appropriate to the positions in which they came which would not give a nasty jar. There is a real danger, I feel, in being too much a purist in such matters, and yet it is not easy to judge how far one ought to go in the direction of freedom. Faults there are, of course, and I am only too well aware of them, though I do not propose to list them; my own private list will, no doubt, be increased this evening.

In one way and another there is a good deal of carving on the outside of the building, and when you remember that it was erected during the war, and that it belongs to a shipping company, and houses a large number of tenants who live by the sea and have relations with all the peoples of the globe, you will at once see how large was the number of appropriate subjects to choose from.

The Great War gave us the keystone heads of Peace and War, and the series of the arms of the Allies carved on the shields between the frieze windows overlooking the river. These will, so long as they last, date the building, for at the time they were executed the number of the Allies actually in the field exactly tallied with the possible number of shields—Servia, Belgium, France, Russia, Great Britain, Italy, Japan and Montenegro. Roumania had not yet entered ; but if the work had not been



PUBLIC SPACE IN GENERAL OFFICE, CUNARD BUILDING

done with expedition, she might have had a claim to be represented, and it would have been awkward to find a place for her.

The sea, on the other hand, supplies as subjects two Neptunes, one dry, the other dripping and windy, a number of weird fish commonly known as dolphins, the signs of the Zodiac in the medallions over the twelve uncanopied heads to the third floor windows on the side streets : a number of medallions in similar positions showing the arms of the various British ports, and on the keystones to the arches over the ground floor windows typical heads representing the peoples of the world : the Negro, the North American Indian, the Chinaman, the Egyptian, the Mexican, the Maori, etc.

And now a few words about the interior. The building is entered through the revolving doors at each end of the main cross corridor. This corridor is clothed with Subiaco marble, a material of a very pleasant cream colour. The main columns are Doric, reaching up to the ceiling, with a Greek lower

order between them. In the centre the corridor is widened, to give importance to the main entrance to the Cunard Public Offices on the one side, and that of the Pacific Steamship Company on the other. These are, of course, the only offices which run in width from street to street, utilising for office purposes the area spaces, from which they derive much of their light. The piers and walls of the Cunard Office are covered with a white grey veined marble, *Arni Alto* by name, which reflects the light wonderfully well. The columns under the skylights, apparently magnificent green monoliths, are, alas ! *Scagliola*, and the columns are really ventilation trunks. The piers in the Pacific Office are plastered and painted, with a good deal of gilding—marble could not be obtained in sufficient quantity when this office was fitted up.

A feature of the Cunard Office is a corridor parallel to the river front, running from the General Manager's department to the First Class Booking Counter, adjacent to which is a lounge for first class passengers. The marble for these columns is *Pentelicon*, and that for the lower order *Crestola*, one of the Carrara series, very similar to the *Arni Alto*. From this corridor a staircase leads down to the lower ground floor, where adequate accommodation of all sorts is provided for clerks, second and third class passengers, etc., and from it also three special lifts run up to the fifth floor, the whole of which is given up to the non-public requirements of the Company—Directors' Rooms and Board Room, Naval Architect, Accountants, and so forth. The space occupied by the Cunard Company itself comprises half the ground floor, a good deal more than half the lower ground floor, the whole of the fifth floor and a few isolated offices here and there.

The Company occupies a much larger area than any other tenant of the building, but there are other very large holdings. Nearly the whole of the fourth floor is held by one company, the two halves of the second floor by two others, half the ground floor and a quarter of the first, together with a good deal of the lower ground floor, by another. And in addition there are many other offices of varying sizes, down to humble folk like ourselves on the sixth floor ; and for such, on various floors, 1st, 3rd and 4th corridors, at right angles to the main cross corridor, divide the whole width into workable portions with rooms about 24 feet wide from the windows.

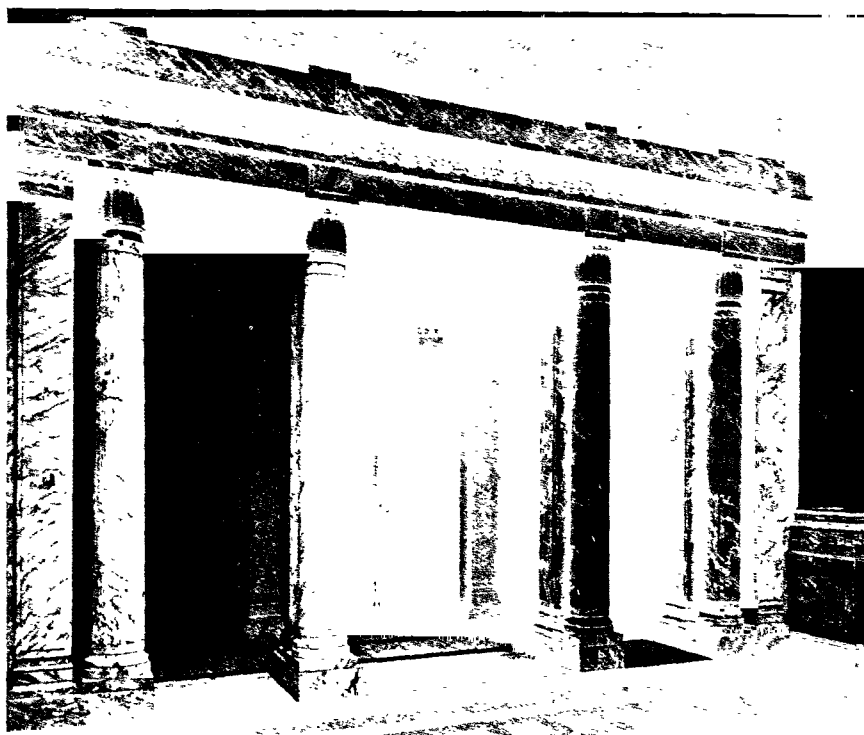
But in all the offices, great and small, a notable divergence will be observed from the old-fashioned office. Doors are glazed right down to the bottom rail, dividing walls are avoided as far as possible, their purpose being served by 7-foot screens with uninterrupted plate glass from them to the ceiling. A general air of spaciousness is noticeable, and in most cases the piers are plastered in a decorative manner and painted cream. The impulse in this direction came from America, where, as we all know, such offices abound ; but I cannot help thinking that all future great office buildings will have to conform to a greater or less degree. It is a serious matter, for with the spaciousness, which is not only apparent but real, the new accommodation required for lady clerks, rest rooms, tea rooms, that for all the staff, lavatories, dining rooms, smoke rooms, and the like, I have very little doubt that what will in the future be considered adequate will take up at least twice the cubic measurement which used to be thought sufficient. One knows well that luxuries, if really of advantage to health, or for any other reason, have a way of becoming necessities, and if ever this extended accommodation becomes universal, the result in the business areas of our great cities will be enormous, and unless much larger slices of the cities are handed over to office buildings, the extension will of necessity have to be in a vertical direction.

The temperature in these offices has been dealt with in the usual way, for the whole building is heated by radiators with forced circulation of low-pressure hot water : but in private offices, and indeed wherever it is considered necessary, ordinary fireplaces can be added. The smoke from these passes through steel tubes up, level, or down, as circumstances demand, to fans driven by electricity, which expel it. There is therefore only one chimney stack, that for the boiler fires. The system works admirably.

The fitting up of these offices, most of which has been done by ourselves, has been very interesting work. No ruling style has been adopted, and there is great variety. You have instances of Jacobean,

Georgian, Neo-Grec, Empire, and severely practical. The innocuous conducting of the pipes and wires for the internal works of all sorts has needed much thought, for the requirements of modern offices are numerous and exacting. Synchronome clocks are fitted wherever asked for; in one important Board Room is installed a Magicoal fire—that ingenious toy which provides all the gaiety of a fire without any of its use; and in one place a Sheringham screen has been put in for the purpose of converting electric light into North Day light, in order that colour may be matched by day or night. Slides in large numbers could be given showing the interior of offices, but in this case I am quite sure that what has been of great interest to me would bore you to tears.

One word about the cost of the building. The whole of the general contractor's work was carried out without contract, on the principle so common in shipbuilding, and almost universal during the war, of cost plus profit. And though this method has worked shockingly badly in many cases, in this instance I feel sure it was the wisest that could have been adopted. It all depends upon the honourable character of the contractors, and as we were so fortunate as to have Messrs. Cubitt and Co. in that capacity, we were safe. In the calculation the Cunard Company were taken as tenants, and their fitting up was not taken into account. But including all the landlord's work, the building, the heating drainage, lavatories, lighting, lifts, &c., and not omitting the marble decoration of the main cross corridor, the cost of the whole works out to 1s. 2d. per cubic foot. This price seems absurd now, and seeing that almost the whole was carried out during the war, I do think it is rather remarkable, and a justification of the methods adopted.



ARNI ALTO MARBLE SCREEN AT ENTRANCE TO MAIN OFFICE, CUNARD BUILDING.

DISCUSSION ON THE FOREGOING PAPER.

Mr. E. GUY DAWBER, F.S.A., *Vice-President*, in the Chair.

Professor S. D. ADSHEAD, M.A. [*F.*].—It gives me especial pleasure to propose a vote of thanks to Mr. Willink for his very interesting Paper. Personally, I regard the Cunard Building at Liverpool as one of the finest buildings which has been erected in this country for a considerable number of years—certainly it is the finest office building. (Hear, hear.) I would like especially to call attention to what Mr. Willink has told us of the way in which the building was carried out. It has been the subject of great engineering problems and also of great constructional problems. Mr. Willink, I think, said that if the building had anything more in it than that it satisfied practical needs he would like to hear of it. I would like to tell Mr. Willink—though I don't think he really needs telling—that it is an exceedingly beautiful building; it is an instance of a building of extraordinary scientific attainment, one containing all that science and practice and administration can produce, combined with the highest artistic qualities. (Hear, hear.) On one little detail of construction I should like to ask a question: What is the connection between the reinforced concrete and the Portland stone exterior; does the Portland stone exterior stand upon itself, as it were, or is it attached to the building as an encasement, as in American practice?

Mr. H. T. DESCH (of Messrs. Cubitt & Co.): I need hardly say that it is a matter of very great pleasure to me to second this vote of thanks. I was associated with the building from the beginning to the end, and, although I have had very long experience, I do not think I have ever been connected with a building which has left more pleasant memories than the associations I had with Mr. Willink and his late partner, Mr. Thicknesse. During the whole time the work went forward with extraordinary smoothness, considering the difficulties we had to contend with owing to the war. Had there not been perfect co-operation between the architects and everyone connected with the work, such a building as this, which I am sure you will all agree is a triumph of art, would never have been produced.

Mr. A. W. S. CROSS, M.A. [*F.*], rising at the instance of the Chairman: I can follow my predecessors in congratulating Mr. Willink on the very successful building which he has described to us. We have all admired the architecture and the planning and the internal decoration generally, and I think we must all have been staggered by the cost. We would like Mr. Willink to give us the details and tell us how to erect such buildings at a similar price. In London 1s. 2d. per cubic foot is quite beyond our dreams for such a palatial structure. The architects of the Cunard Building may be congratulated on having produced a building which will be regarded in the future as marking an

architectural epoch, whether it be because of its architectural merits or the convenience of its plan. I endorse all that Professor Adshead has said as to the great advancement it shows on any building of recent years. We are very pleased to welcome Mr. Willink here. I wish we had more Papers from provincial members: it would benefit everyone if they would take their share in the Institute's work. They do what they can on the Council and on such Committees as they are able to attend: but I think that our Papers every session should include contributions from provincial members.

Mr. GEORGE HUBBARD, F.S.A. [*F.*]: May I, also, thank Mr. Willink for his interesting Paper and his delightful illustrations. I can only reiterate what has been said already, that this is one of the finest buildings that has been put up within the memory of any of us. I am sure that in the future it will hold its own and stand out as one of the great works of the century. I should like also to thank Mr. Willink for the excellent delivery of his Paper. He spoke with a charm and clearness which was refreshing and which greatly added to the pleasure of listening to him.

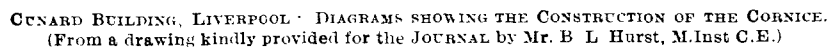
Mr. GILLBEE SCOTT: It may be of interest to mention that I have had recently a tender for a reinforced concrete factory in London at 2s. 10d. a foot!

Mr. H. M. FLETCHER, M.A. [*F.*]: I have had the pleasure of seeing the Cunard Building, and there is a point about it which struck me forcibly on both occasions. I have seen illustrations of it in the building papers, and we have had this delightful series of slides to-night: but it is a building to which less justice is done by illustrations than almost any other building I know. When you get in front of the building it is extraordinary what an imposing effect it has—an effect of solidity which illustrations cannot bring out. That is largely because of the great depth of reveal in the ground-floor openings. And I have an advantage over Mr. Adshead in that I have seen the inside of the building, and had the opportunity of studying it, in spite of Mr. Willink's modesty. It is welded together into a very harmonious whole.

Mr. FREDERICK CHATTERTON [*F.*]: I should like to hear some further elucidation of the wonderful cornice Mr. Willink spoke of. If we could see a working drawing it would be a great advantage.

The CHAIRMAN, in putting the vote, said: I thoroughly agree with Mr. Hubbard that this is one of the most interesting Papers we have had in this Institute for many months. We should like to congratulate the architects upon having the opportunity of putting up such a wonderful building. It falls to the lot of very few architects in England to be called upon to design a building on an island site unrestricted as to

Mr. B. L. HURST, M.Inst.C.E., M.I.Mech.E., who was the Consulting Engineer appointed for the structural part of the building by the Cunard Co., at the instance of Messrs. Willink & Thicknesse, remarked: The cornice overhangs about six feet from the wall face, and about seven feet from the face of the wall columns, which latter are set back about 12 inches behind the wall face. The method adopted for carrying the cornice was made possible by the fact that large stone corbels or modillions occur under it at intervals of about five feet along its length. Over

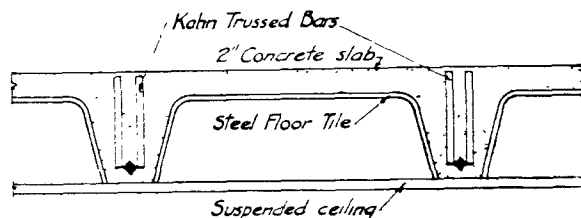


CUNARD BUILDING, LIVERPOOL. DIAGRAMS SHOWING THE CONSTRUCTION OF THE CORNICE.
(From a drawing kindly provided for the JOURNAL by Mr. B. L. Hurst, M.Inst.C.E.)

each of these modillions there is a reinforced concrete cantilever, of depth equal to that of the flat cornice stones and hidden from sight by the modillion: these cantilevers are carried back into the building and are anchored down to a line of roof beams which run parallel with the wall and about eight feet inside it. The construction therefore consists of a line of wall beams—another similar line of beams behind and parallel to them—and cantilever beams joining them and projecting out over the cornice at each modillion. The flat cornice stones are dovetailed on to the sides of these reinforced concrete cantilevers, and the modillions are suspended from their lower surfaces by being dovetailed on to them. It was a difficult matter to deal with the cornice at the angles of the building, because the cornice projection "on the diagonal" is about eleven feet beyond the faces of the corner columns, but each corner is arranged in a similar manner, with a large cantilever beam 27 feet long, extending about ten feet beyond the quoin of the building in a diagonal direction: the cornice stones and modillions are dovetailed on to these cantilevers and some of the cornice stones are suspended from them by means of bronze bolts, in order to give greater security.

Mr. WILLINK (in reply): I am most grateful for the extremely kind things which have been said. I cannot think I deserve them. There were only two questions asked about which I could make any reply: I was hoping there would be many criticisms, and that I should get some definition, from a widely experienced person, as to the length to which one may go when one adopts a style and takes such liberties with it as to make it different from what it was before. It is a difficult point, and one which varies very much, partly being influenced by the temperament of the designer, and partly by the amount of education he has got in the particular style he is dealing with. Therefore I

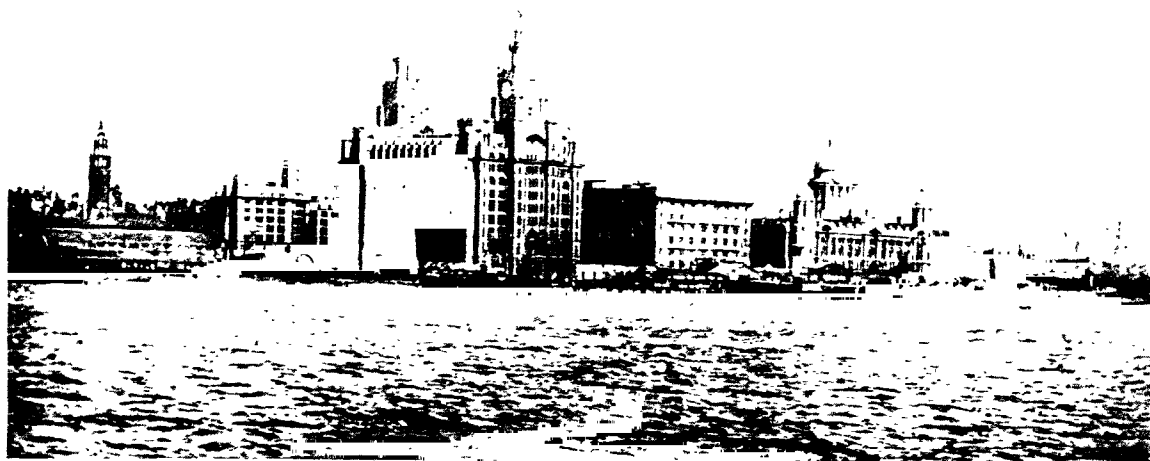
must go forth from this hall unsatisfied in that respect. With regard to Professor Adshead's question as to how the Portland stone clothing was put on to the reinforced concrete, I can only say that the stone would very nearly stand by itself. It is not a complete wall, because it had to be thinned very much where it came



CUNARD BUILDING. DETAIL OF FLOOR (From diagram kindly supplied by the Trussed Concrete Steel Co., Ltd.)

against the piers, but as it left the piers it clasped them round. I was very much puzzled in the matter of the strength we ought to have at the corners, and when first suggestions were made as to reinforced concrete, and a square column was put at the end, we did not like the Portland stone being so thin. Mr. Hurst came to our assistance there, and, instead of having one pier, we had two piers at an angle of 45° , which gave a very strong corner.

Mr. ARTHUR KEEN, *Hon. Secretary*: May I say one word about the late Mr. Thicknesse? He and I were very old friends. We were brought up in the same office and worked side by side, and although he was not very well known here, he was well known to me. He was a man I had the sincerest regard and affection for: he was one of the keenest enthusiasts I ever knew, and it is a matter of the greatest possible regret to me that he could not come here to receive our congratulations on his share in the most interesting work which Mr. Willink has described to us.



Liver Building

Cunard Building

Mersey Dock Offices

Liverpool Cathedral

ARCHITECTURAL EDUCATION.

Papers read at the Franco-British Conference of Architects held at Paris, 12th-13th November, 1920.

VI. THE COURSES IN ARCHITECTURE AT THE ECOLE DES BEAUX-ARTS, PARIS.

By J. GODEFROY, Chef d'Atelier.

I have been given the honourable task of explaining to our English brethren the system of our architectural teaching as given at the Ecole des Beaux-Arts. Our eminent brethren will tell you in their turn how they understand this same teaching in England, and after hearing them you will be able to judge of the difference between the two methods and to form your own conclusions.

In France there is only one system of teaching architecture, that of the Ecole des Beaux-Arts, Paris. This is so strictly the case that any provincial schools which may exist are under the same rules as the Paris school, their students take part in the same competitions, the subjects of which are set in a single syllabus with one set of judges, stationed at Paris.

The architectural section of the Ecole des Beaux-Arts is divided into two classes. Students are admitted into the second class after a competitive examination, which takes place twice a year, in February or March and in June or July. The tests for admission are as follows:—

(1) An architectural design, which has to be executed in twelve hours by the candidates working in separate cubicles. (2) Drawing from a plaster cast or ornament, or a head, in eight hours. (3) Modelling ornament in low relief, also in eight hours. Passing these three tests gives the right of admission to the final examination.

The number of candidates admissible to the second part of the examination must not exceed 134—one hundred French and thirty-four foreigners.

The final competition consists of (1) a two hours' written examination in mathematics followed by a *vivâ voce*; (2) a problem in descriptive geometry, for which two hours are allowed, also followed by a *vivâ voce*; (3) an essay on a historical subject, with another *vivâ voce*. From the result of these examinations the list of candidates admitted to the school is drawn up. There must be fifty Frenchmen, and not more than seventeen foreigners.

I wish to draw special attention to the real difficulty of this competitive examination, which the public hardly recognises sufficiently. Besides his familiarity with architecture, drawing and modelling, the candidate must possess a knowledge of mathematics greater than that required for the *baccalauréat*, if only in descriptive geometry, which he must have studied thoroughly. I should add that there is not one of the great State schools in which the difference between the number of candidates offering themselves for admission and that of students actually received is so great, since out of about 600 candidates entered for each examination, not more than fifty are ever admitted to the

school. Those who are admitted are bound in the course of their studies to take part in competitive examinations of architecture, divided into "analytical exercises," or studies of composition on a large scale, and designs properly so called (*projets*). All these exercises are studied and finished off (*rendus*) in the different studios from a sketch which has been executed "*en loge*" in twelve hours. There are in each year six finished drawings (*rendus*) of analysis and six of designs (*projets*). Besides, each month a rough sketch ("*esquisse-esquisse*") is executed *en loge* in twelve hours as a test of skill and proficiency.

For a student to pass into the first class he must have obtained the necessary number of mentions (*valeurs*) in these competitions. He must have got two honourable mentions for analysis and four for design, two of which at least must have been for finished drawings (*projets rendus*), not including work on the history of architecture, which consists in the study of examples of different periods under the direction of the professor of the general history of architecture. To that must be added tests on the scientific teaching, which comprises: (1) The statics and resistance of materials, with a *vivâ voce* examination on the subject of the lectures; (2) descriptive geometry, including a number of problems to be worked out on paper, one at least *en loge*, followed by an examination on the lectures; (3) stereotomy, and surveying and plotting—worked out drawings have to be sent in during the lectures, a final one has to be made *en loge*, in eight hours, and there is a *vivâ voce* examination; (4) perspective, which includes a certain number of sketches from nature and perspective drawings from a given syllabus, and a *vivâ voce* examination on the course of lectures; (5) construction, which requires two *projets* to be done in the studio within a month, a written and an oral examination; lastly, a large *projet* of general construction drawn out in three months from a sketch done *en loge*.

Lastly, students have to pass examinations in drawing of and modelling ornament and of the figure. It is only when he has successfully passed these different tests that a student is admitted to the first class.

The First Class.

The competitive examinations open to students of the first class are the following:—

(1) Architectural examinations, rough sketches (*esquisses-esquisses*) *en loge* to be worked out (*rendus*) in two months.

(2) Examinations in ornament and its appropriate application.

(3) Examinations on the course of lectures on the general history of architecture.

The students of this class have also to join in the classes for drawing and modelling from nature or from the plaster cast.

Besides this there are also every year oral examinations in building legislation, physics and chemistry.

The students must have obtained at least ten mentions in the architectural examinations and one in each

of the other subjects mentioned above in order to be admitted to take part in the examination for the diploma.

THE DIPLOMA.

Since the diploma is a sort of consecration of the work done at the school, it can be obtained even after the age limit, which is fixed at 30, but only on condition that the candidate has obtained the number of mentions necessary, before that age.

The tests are made up of three portions, written, drawn and oral. The written test consists in working out a question relating to the practical carrying out of works. The portion drawn consists in a design conceived and fully worked out as if for execution, that is to say with figured plans, sections, and elevations completed by details and a written description, with specification and estimate of some one part of it.

Lastly, the oral test consists in the discussion of the design by the candidate before a special jury as if he were arguing the thesis for a degree before the doctors in that faculty.

I shall pass rapidly over the numerous special examinations instituted as the result of legacies or of testamentary dispositions. These examinations are a valuable stimulant as well as an encouragement. They decide the awards of the following prizes:—

For the second class:—The *Muller Tochnée* prize, given to the student who has obtained the greatest number of mentions in the examinations of the year. The *Jean Leclerc* prize, awarded to the student who has passed first out of the second class into the first. The *Jay* prize, for the student who was first in the examination in construction.

For the first class:—The *Rougevin* prize, given after an examination in the principles of ornament and its appropriate application, an essentially artistic examination. The *Godboeuf* prize, whose claims to interest and importance come very near those of the last. The *American recognition* prize, given after a competition in composition, at full speed. The *Guadet* prize, which is assigned to the holder of the best diploma and which indicates on his part the highest qualities of design and construction united. I pass over several, but the one which I must not neglect to mention is the *Grand Prix de Rome*, whose importance and fame are known throughout the world. It includes successive eliminations after sketches in difficult design done *en loge* in 12 hours, 24 hours, and 4 days, which end by marking out ten students clearly gifted who are admitted to the final test *en loge*. That it is which causes this competition to touch the highest point of the great art of architecture. It forms the dream of the best students, indeed of all the students, because besides the rewards which the prize-winner gains, it is the crown of a whole system of teaching—of the very highest teaching. One may even say that those who have no share in it benefit by it. The *Prix de Rome* is the star which lights our road.

Such gentlemen, is the teaching of architecture in our great and beautiful School of Fine Arts.

Now, is this teaching capable of improvement? No

doubt it is, for perfection does not exist. But one must beware of being too severe on this teaching, for it is ingrained in the nature of the French people to be always dissatisfied, always criticising themselves. I know that modifications of our system are under consideration, in order to bring it, perhaps, into closer relation with the progress of the times; I know that the tendency nowadays is not to flatter oneself with illusions, but to become, so they say, more practical; but ought Art, true Art, to suffer from that? Others, however, than I will bring these new ideas before you.

However that may be, our School of Fine Arts holds none the less a lofty position towards which are turned the eyes of all the civilised world. Its artistic and scientific teaching is based on veneration for a long tradition of emulation which springs from the close comradeship which exists between pupils of the same studio and which enables the younger members to benefit by the help of their seniors. In return for this help the former give their services as "niggers," as they are called, that is in helping the seniors in finishing their *projets*, by which they themselves learn. In a word, from this mutual help, from this close collaboration, springs a sort of buoyancy, to which our kindly French gaiety gives a still brighter sparkle, so that one sees weak characters grow strong, more decided ones reach their full strength and development.

And now our English colleagues must allow me to say briefly to my French comrades in what respects it seems to me that our two systems of teaching differ. It can, of course, be nothing but my own personal opinion, and I am sure, therefore, that I may ask for your kind indulgence if it is not entirely correct.

In France the tradition is that, from the very beginning, a student should learn composition without knowing exactly what are the modern requirements which the building he is designing must satisfy, even without having, more often than not, the least idea of the nature of the materials to be employed.

We consider in France that he who knows how to compose will always get the best results from all the problems put to him. And it is that which is the cause that in our school projects of composition take the first place whilst those which concern construction properly so-called, the "technique" of the profession of architecture, are, perhaps a little too much, pushed into the background. In England, on the contrary, the student is initiated first of all into the knowledge of materials and of the sciences which concern their use: it is only later that he begins to study composition.

Most of our English brethren think that composition as a whole must flow out of a perfect knowledge of the needs which the building is to supply; and that on the other hand the study of construction must go hand in hand with that of composition. For that reason in England almost as much time is given to the study of construction as to that of composition, and in English projects the details of the construction are invariably shown.

I must add that in the English schools considerable

importance is attached to sketching from nature, to measured drawings of buildings, and lastly to representing projects in perspective: the building is taken from the point of view from which it will be generally seen in reality. That is why the projects of English architects always have the appearance of a thing already executed, or at least perfectly executable.

Lastly, more than we do, perhaps, English professors require from young people who are intending to become architects thorough general education. They think, indeed, not without reason, that the architect, master of the work, ought by his intelligence, his knowledge, and his talent, to possess a complete moral ascendancy over those who will be called upon to realise his ideas, to such an extent that he may be able to direct them in the best way possible.

Nevertheless, I shall not venture to pronounce an opinion on the comparative value of these two systems so far as to draw a moral from them. But what I can say is that the English system is the more practical, rests on a more substantial foundation.

Whilst ours is single, resting entirely on that of our School of Fine Arts, that of the English schools, in spite of a certain common tendency, allows of considerable variety of method. Is that a good thing, or a bad one? Are we or our English friends in the right? Undoubtedly from our teaching there may result a certain lack of variety in our art. If our land of France is one, in mind as well as in heart, it is none the less varied beneath its unbreakable unity. If the same French heart is to be found in a Basque as in a Breton, the manners and customs of the two are none the less different, just as the needs are different of men who dwell in lands whose soil is not the same, and who are not subject to exactly the same climate.

Is it, therefore, quite logical that an architectural student from the Basque provinces should receive exactly the same teaching as an architectural student from Brittany? I will not dwell on the point. But, gentlemen, is not our school a nursery of students from all nations, who will afterwards carry French taste to every latitude.

I have just used the words French taste. Our school is indeed above all the school of French taste. And it is that which it must remain. It is for the architect a school of general French culture. And it is that which it must continue to be.

If we take from our English friends a little of their practical sense, it must not be to the detriment of our own art. Let us rather make that art serve those realistic aims which we may be called upon to carry out. That is the direction in which our art and English aims can work together. The lofty teaching of our School of Fine Arts should, for example, inspire our provincial schools, but it must be in order to teach their students that if architectural works must have a utilitarian objective, a French artist ought to know how to bring beauty out from that utilitarian objective. There is even a beauty essentially French which can only arise from bringing this very utility to the front. It is that

which will cause the Basque house and the Breton house of the twentieth century, however different they may appear at first sight, to have a certain air of relationship in beauty, the reflection of the same French spirit which will have known how to adapt to different requirements and with different materials the same ideal, the same intelligence, the same methods.

Allow me, gentlemen, to tell you how proud I am to share with my old friend Lieut.-Colonel Cart de Lafontaine, the honour of being one of the links in the *liaison* between our two great meetings. Need I remind you that the good understanding between our two associations began to show itself in 1913. It became closer in 1914 after our exhibition in the Tennis Court. I ended my report on that exhibition by expressing the hope that this manifestation, which had arisen from an *entente cordiale*, would not be the last. How much has happened since then which has brought about more than an *entente cordiale*—which has seen the destinies of our two countries united during four years of most terrible war, and their blood mingled in the struggle against the common enemy.

To-day it is for the works of Peace that so close a union will be needed. The union of the minds of our two nations must be maintained by frequent relations between intellectual groups like ours. The union which was indispensable to obtain the common victory will remain as invaluable as ever for establishing happiness in peace time and for the peace of the world, which depends on the close alliance between our two great countries. Let us remain, therefore, gentlemen, in the contests of peace, allies as closely united as when in war we triumphed together. And for that which belongs to us who are the constructors and builders of houses for mankind, let us first set the example of walking hand in hand, for the sake of art, of science, of our native land.

Books Received.

- Handbook of Building Construction: Data for Architects, Designing and Constructing Engineers, and Contractors. Compiled by a Staff of 46 Specialists. George A. Hool, Professor of Constructional Engineering, Wisconsin University, and Nathan C. Johnson, Consulting Engineer, New York. 2 vols. La. 80. New York, 1920. 43 net. [McGraw Hill Book Co. New York and London (6 and 8 Bouverie Street, E.C. 4).]
- How England is Meeting the Housing Shortage. By Lawrence Veiller, Secretary National Housing Association, New York. [National Housing Association, 105, East 22nd Street, New York City.]
- Domestic Fuel Consumption. By A. H. Barker, B.A., B.Sc., Whitworth Scholar. 80. Lond. 1920. 14s. net. [Constable & Co., Ltd., 10 Orange Street, Leicester Square, W.C.]
- Municipal Accomplishment in City Planning, United States. Edited by Theodora Kimball, Librarian, School of Landscape Architecture, Harvard University. 80. 1920. [National Conference on City Planning, 60 State Street, Boston, Mass.]
- Uses, Strengths, and Working Stresses of British Columbia Timber. By Hon. T. D. Pattullo, Minister of Lands. Issued by the Forest Branch, Department of Lands, Victoria, B.C.
- Year-books (1913-18) of the Annual Exhibitions held by the Philadelphia Chapter of the American Institute of Architects and the T-square Club of Philadelphia. 40.
- Concrete Roads and their Construction: being a Description of the Concrete Roads in the United Kingdom, together with a Summary of the Experience in this form of construction gained in Australia, Canada, New Zealand, and the United States. 80. Lond. 8s. net. [Concrete Publications, Ltd. 4 Catherine Street, Aldwych.]
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CORRESPONDENCE.

Fixed Tenders for Building Work.

115, Gower Street, W.C.1.: 1 Feb 1921.

To the Secretary R.I.B.A.—

SIR,—With reference to the recommendation of the Council stated in the current issue of the JOURNAL, to the effect that the pre-war practice of obtaining fixed tenders for building work should again be reverted to, I think that it would be greatly to the interests of the profession generally if the Practice Committee would state in detail the reasons that led them to form this conclusion.

Considerable experience has taught me that a contract based on nett cost plus a fixed percentage profit had many advantages over the old system. The danger of "scamped" work is almost entirely eliminated, as the contractor has no incentive to attempt to deviate from the specification. Further, the architect has much greater control over all matters appertaining to the work; and if he is a business man as well as an architect—a combination one must admit not usually found—he can generally effect very considerable savings as the work proceeds.

A properly drawn contract should, by limiting the contractor's profit, provide against the danger of his purchasing expensive articles where cheaper ones will serve. Experience has also taught me that contracts, not only on the basis of payment on nett cost plus a percentage profit but also on an imprest account whereby the contractor is paid in advance on monthly estimates, are preferable to the pre-war fixed price system; profits are considerably reduced and the clients reap full benefits throughout. Further, more real competition is introduced into this form of building than any other, as tenders are obtained by the contractor and submitted to the architect for every particle of material purchased when it is actually required, and not weeks or perhaps months beforehand. Again, the danger of a "ring" being formed by builders or merchants when tendering is greatly minimised.

Now that prices show a downward tendency surely it is the very time to keep to the system I advocate, as clients, having been forced in the past to pay increases as prices advanced, can now insist on reaping the benefit as prices decrease, an impossibility under a fixed sum contract.

Personally, I hope the profession will never revert to the iniquitous and at times grossly unfair system of competitive tendering, and I for one shall build on the cost price basis wherever possible, as experience has convinced me that the advantages considerably outweigh any disadvantages the system may have. But then, no system yet devised is perfect.

G. SCOTT COCKRILL [A.].

Mr. HORACE CUBITT [A.], Hon. Secretary of the Practice Standing Committee, to whom the foregoing letter was submitted, replies as follows:—

Without going so far as to detail, in the manner sug-

gested by Mr. G. Scott Cockrill, all the considerations which have led the Practice Committee to recommend an early return to the custom of fixed tenders, one reason may be given which seems to me personally to be in itself sufficient. It is that, with a fixed tender, the client, before authorising the commencement of a building, has definite information as to what it is going to cost. From the standpoint of a business man, a contract on the basis of a fixed tender is therefore greatly preferable to one on the less definite cost-plus-profit basis, and after all, it is the duty of an architect—whatever his personal predilections—to adopt the method which best serves the interests of his client.

HORACE CUBITT.

*Hon. Secretary, Practice Committee.***Architectural Students' Competitions.***Architectural Association. 8th February, 1921.**To the Editor, JOURNAL R.I.B.A.—*

SIR,—The present methods for the adjudication of students' competitions leaves very much to be desired. The students' duty, apparently, ends when their drawings have been submitted. How, by whom, and when they are judged they must not enquire.

No practising architect would submit a design in competition where the names of the assessors were unknown, or where the names of the assessors appointed did not inspire confidence in their ability to make a proper selection. The architect in such case can always do the obvious thing and not compete, but the student is not in the same position. He *must* compete—how otherwise will his abilities receive recognition?—yet he must do so under conditions which are, to say the least, arbitrary and slipshod.

Take for instance the Rome Competition, the "Blue Riband," so far as value goes, of architectural students' competitions. The names of the jury are utterly unknown to the student; even those few people in the know only hear names casually, the full list is never published. The names, when one does hear them, are those of eminent architects whose student days were over half a century ago.

The jury probably includes the names of one or two middle-aged men, but too small a proportion to ensure a thorough appreciation and understanding of the present-day student.

Present-day methods of training and fashions in architecture are somewhat different from those of the mid-Victorian régime, and as a consequence too often the mediocre design is selected in place of those designs showing evolutionary tendencies which one would imagine the prizes were intended to foster.

Slackness in writing programmes and in assessing competitions is not confined to any particular body. I was myself on the jury of an important Institute prize recently, and was entirely ignorant, until the Committee met, as to who the members were. I did not receive a list of the members, nor has a list been published. Some members of that Committee were probably unable to attend, but if so I was unaware of it, and

one can easily imagine a case where the absence of a particular member would have necessitated an adjournment so that his advice might be obtained.

It has been my experience many times that the best students have failed to win the recognition to which their genius entitled them solely through the poor selective ability of the assessors or examiners to whom they submitted their work.

Students' competitions are not on a par with competitions for practising architects, and should be assessed differently. They (the students) should have the opportunity of expressing their aims and ideals to the jury; and as none better than the students themselves know where the shoe pinches, so all juries of students' competitions should have 50 per cent. of their members as little removed from the student as circumstances permit, not only in justice to the student, but also to ensure that tricks, cribs, and dodges are exposed.

I would personally not advise any student to compete except under the following conditions:—

- (1) The names of the jury or assessors should be published with the conditions of the competition.
- (2) All competing students should be entitled to submit one name for election to the jury—all such names receiving nomination equal to 25 per cent. of the total number of competitors to be enrolled on the jury.
- (3) A written précis of the award to be published (or delivered by a member of the jury.)

ROBERT ATKINSON [F.].
Director of Education.

Mr. ARTHUR KEEN, *Hon. Secretary*, has sent the following reply to the above letter:—

I will not enter into controversy with Mr. Atkinson on the points that he raises: he may be right or wrong in his views, and few things are too perfect for amendment; but I suggest to him seriously that his right course is not to publish his criticisms in the Press when he has in his own hand the means for securing all that he wishes.

The Institute prizes are awarded, not by any jury of assessors, but by the Council of the Institute, which is a body elected by all the members. The Board of Architectural Education advises the Council on matters relating to the prizes, and if Mr. Atkinson had criticisms or suggestions to offer his obvious course was to bring them before the Board of which he is a member, knowing quite well that full weight would be given to any proposals made by him. If he failed to convince the Board he could deal with the matter in the Council, of which also he is a member. He has every opportunity of knowing the names of those appointed to study the work sent in for the prizes, of revising the conditions that he describes as arbitrary and slipshod, of amending the programmes that he objects to, of securing the publication of lists of names, and of excluding assessors whose selective ability does not seem to him to be up to the standard that he desires.

He advises students not to compete except under conditions which he outlines, but he has not brought

these conditions before the notice either of the Board or the Council.

As regards his claim for students' work to be dealt with by young men who have sympathy with the attitude of the student, may I remind him that, in the very Committee that he particularly refers to, out of a total of eight members there was only one who could not be described as a young man, and he is at the head of one of the architectural schools. As a matter of fact he was not present. All the others were men who are well known for their active interest in schools and students.

The Press should be used for the discussion of broad matters of principle; questions of administration are better dealt with in the bodies that are concerned with them.

ARTHUR KEEN, *Hon. Sec. R.I.B.A.*

Common Sense in Building Construction.

10th February 1921.

To the Editor, JOURNAL R.I.B.A.—

SIR,—Mr. Waldram's article is a plea to free ourselves from the "tyranny of the text book" and to give "common sense full play." Lest an application of "common sense" to the article should only induce the architect to take refuge in the text book, will Mr. Waldram please explain the following:—

(a) In Fig. 2 we have a beam formed with two 7-inch by 2½-inch wood joists doing the work of six 8-inch by 2-inch joists in Fig. 1, yet the floors are said to be designed "to the same degree of stiffness."

(b) The beam in Fig. 2 has an effective span of 11 feet 3 inches (9-inch bearings) and carries a floor width of 7 feet 9½ inches. With the Bye-law super-load of 70 lb. and dead weight of 10 lb. per square foot a simple calculation shews a fibre stress of 2,900 lb. per square inch—a factor of safety of 1½ on the 5,500 lb. ultimate stress. Recognised practice allows a factor of safety of 5 to 7 for timber—on data taken, of course, from good specimens—and the usual working fibre stress taken is 9 cwt., or about 1,000 lb.

Practically every dwelling-house floor has, sooner or later, a tremendous load to carry—crowded to the very utmost with human beings—for example, at an auction sale; and an architect striving to reduce the cost of his building should not commence by reducing the beams to less than half the strength required by recognised practice.—Yours, etc.,

D. WEBSTER ROBERTSON [*Licentiate*].

Mr. WALDRAM sends the following reply:

Thanks are due to Mr. Robertson for calling attention to an interesting point which, in a paper already, I fear, unduly long, was left to a mere note on the detail drawing, and to the very striking results of the test loading. This note, which gives the loading on the main beams as half that on individual joists, has doubtless escaped attention. Single joists are subject to concentrated loads, shocks, etc., and no reasonable objection can be taken to the somewhat liberal

loading on them implied by the Ministry of Health schedule, which is, I think, consistent with a total loading of 56 lb. per square foot, not 80 lb., as given by Mr. Robertson, and quoted apparently from the L.C.C. Regulations.

But if individual joists are to be sufficient for loads which are more than double the average over the whole floor—a reasonable value for main beams would appear to be half that on single joists.

The question arises as to what is the criterion of stiffness. Beyond the theoretical limit of a deflection not exceeding span \div 500, which is considered to involve danger of cracking plaster ceilings, is there anything more exact than the test of jumping, or of letting one's weight down heavily on the heels?

As regards strength, if the actual tests, which were on very bad timber, had been less obviously convincing, possibly 9-inch or 11-inch timbers might have been used to give greater strength and stiffness with still less wood. A $2\frac{1}{2}$ by 11-inch section, for instance, would have been about 25 per cent. stronger, nearly twice as stiff, with about 20 per cent. less cube.

But with such an obvious reserve of strength and adequate stiffness, consideration was given to appearance and headroom, both economically important.

It must be confessed that the remote contingency of a crowded auction sale in a small first-floor cottage bedroom was not considered. The more reasonable possibility of sacks of potatoes or stacks of books, neither of which are usually stored except against the wall, was considered to be within the category of unreasonable misuse which it is the peculiar province of the factor of safety to meet.

It may not be without interest to mention that the question of reasonable scantlings for *cottage* floors was suggested by the discovery in a remote village that the traditional scantlings for first-floor fir joists carrying heavy old furniture was 6 inches by 2 inches over 12 feet span and 2 feet centre to centre.

Without suggesting anything so revolutionary as this, it is, I think, obvious that the matter is one of those everyday points which has hitherto escaped the consideration which it demands to-day.

It is somewhat unfortunate that the Ministry of Health specification permits alternative sections, but of equal *area*; not of equal strength or equal stiffness.

PERCY J. WALDRAM.

REVIEWS.

OLD CAMBERWELL.

Old Camberwell: Its History and Antiquities. By Philip Mainwaring Johnston, F.S.A., F.R.I.B.A. 8vo., Lond., 1919. [J. R. Wigzell, 12, Coldharbour Lane, Camberwell.

Antiquarians and archaeologists will find in this small volume much of interest not to be discovered in previous records of Camberwell. It traces the history of St. Giles' Church from the Norman period down to its final destruction by fire in 1841; describing its

gradual transformation from the twelfth-century small structure consisting of nave and chancel, which was given by the Earl of Gloucester to the Priory of Bermondsey, to the ultimate church with chapels to Our Lady and St. Nicholas and with north and south aisles.

Perhaps the most interesting feature of the church, because it is the only architectural relic, is the two stalled sedilia and piscina of late fourteenth-century work which Mr. Johnston has recently re-erected in the modern church. He gives drawings and a photograph of this with valuable technical descriptions, particularly noting the curious window opening in the back of the western stall. His catalogue of brasses and historical notices of Camberwell families, including the Norman Muschampes, the Skinners, the Scotts (John Scott was a Baron of the Exchequer in 1528), the De Crespignys, the Bowyers (Sir Edmund was one of Edward Alleyn's witnesses to the Foundation deed of Dulwich College and a guest at the College banquet in 1619), the Gardiners and others, are very complete.

Of topographical interest are the descriptions of Roman causeways, and of architectural interest the reviews of many stately homes formerly existing in the parish, including Great Denmark Hall, a stately seventeenth-century house with a fine oak staircase and painted hall.

EDWIN T. HALL [F.].

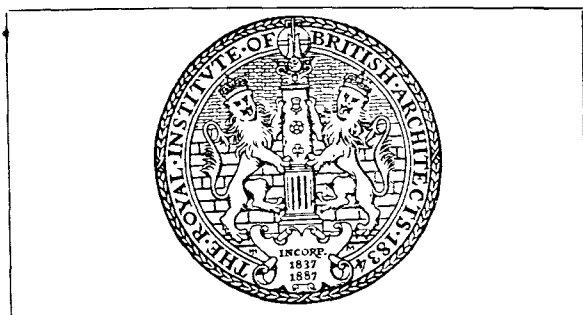
THE LIBRARY.

The Ricker Library, University of Illinois.

The Department of Architecture of Illinois University has forwarded a copy of the University Bulletin (vol. xvii, No. 29) which is devoted to a description of the Ricker Library of Architecture (which forms part of the University) by Mr. N. C. Curtis. The Ricker Library, which contains about 8,000 volumes, is one of the great architectural libraries of America, being only second to the famous Avery Library of Columbia University. Mr. Curtis, indeed, doubts whether even the Avery Library is superior "for serving the prime function of a school collection, the furnishing of precedent and inspiration for design."

Mr. Curtis, in "a familiar talk to students of the University," addresses them as follows: "Is it not a fact," he asks, "that at the end of your four years' course of study you do not know as much about the great volumes contained in this library as you ought to know; that you have not made the best use of your privileges and opportunities?" Mr. Curtis follows the development of architectural literature and refers to the most important books. At the end of his Paper he gives a list of "old and rare" books contained in the Ricker Library, of which the most important are the Caesariano *Vitruvius* (1521) and Jacques-François Blondel's *L'Architecture Française* (1752-56).

R. D.



9 CONDUIT STREET, REGENT STREET, W., 19th Feb. 1921.

CHRONICLE.

Notes from the Minutes of the Council Meetings.

31st January, 1921

The Ministry of Health and the Scale of Fees for Housing.—The Members of the R.I.B.A. Deputation to the Ministry of Health reported that a satisfactory agreement had been arrived at with the Ministry on various points connected with the fees for Housing work. The terms will be published as soon as possible.

Annual Conferences in the Provinces.—A Committee was appointed to arrange for the holding of Annual R.I.B.A. Conferences in important provincial centres.

Control of Competitions.—A proposal by the Competitions Committee for bringing the Allied Societies into closer touch with the R.I.B.A. in the control of competitions was accepted by the Council.

Public Lectures on Architecture.—The Council adopted a programme prepared by the Literature Standing Committee for a series of public lectures on Architecture by distinguished authorities.

The Royal Gold Medal, 1921.—The Council unanimously adopted the recommendation of the Royal Gold Medal Committee in favour of the nomination of Sir E. L. Lutyens, R.A. [F.], as Royal Gold Medallist for the year 1921.

The Government of Ireland Act.—A letter was received from the Chief Secretary for Ireland indicating the possibility of sympathetic consideration of the proposals put forward by the R.I.B.A. on behalf of the professional and technical division of the Irish Civil Service.

Architects' and Surveyors' Assistants' Welfare Committee.—The Council requested the Practice Committee to confer with the representatives of the Surveyors' Institution on the proposals submitted by the Assistants' Welfare Committee.

The British School at Athens.—The Literature Committee was asked to consider the advisability of giving further financial assistance to the British School at Athens.

Reinstatement.—Three members were reinstated.

14th February, 1921.

H.R.H. The Prince of Wales.—The Prince of Wales has consented to accept the Hon. Fellowship of the

Royal Institute, and the nomination will be submitted to the General Body in due course.

The R.I.B.A. Library.—The Council are considering an interesting scheme prepared by the Literature Standing Committee for improving the accommodation of the Royal Institute Library.

The Conditions of Contract.—The Council have appointed a committee for the purpose of meeting representatives of the Institute of Builders and the National Federation of Building Trades' Employers and discussing the position with regard to Conditions of Contract.

Housing in Rural Districts.—Arrangements have been made for the appointment of a member, with special experience in rural housing schemes, to assist the representatives of the R.I.B.A. in negotiations with the Ministry of Health.

R.I.B.A. Garden Party.—A Garden Party will take place on Peace Day, 1921, on the same lines as the successful function of last year.

The Godwin Bursary, 1921.—The programme of the tour of Mr. C. B. Pearson [F.] as Godwin Bursar 1921 has been approved. Mr. Pearson will travel in the United States to study the planning and construction of Hotels.

Reinstatements.—Three members were reinstated.

Royal Engineers' Tribute to the Professions which aided them in the late War.

At the Annual General Meeting of the Corps of Royal Engineers held in June last year it was decided to invite to dinner at the Headquarters Mess, Chatham, the President and one other member of the Council of each of the principal Engineering Institutions. The idea underlying the proposal was to show their admiration of the part played by those institutions in the late war, and in particular to express their sense of the debt owed by the Corps of Royal Engineers to the members of those institutions who served in, or in connection with, the Royal Engineers: also to assist in keeping the civil and military professions of engineering in touch with each other. The dinner has been fixed to take place on the 17th March, and invitations to attend as representatives of the R.I.B.A. have been accepted by Mr. John W. Simpson, *President*, and Mr. Maurice Webb, D.S.O., M.C., *Member of Council*. Those attending will be accommodated for the night in the vicinity of the R.E. Headquarters Mess as the guests of the officers of the corps. On the following morning the guests will be shown round the School of Military Engineering and given some insight into the general scope and methods of training there.

Mr. Jay Hambidge's Further Evidence for Dynamic Symmetry in Ancient Greek Architecture.

As already announced, a Joint Meeting of the R.I.B.A. and the Society for the Promotion of Hellenic Studies has been arranged to take place at the Institute on Tuesday, 1st March, at 8 p.m., when Mr. Jay Hambidge will read a Paper entitled "Further

Evidence for Dynamic Symmetry in Ancient Greek Architecture." Mr. Hambidge, writing from Athens on the 2nd February, says: "Recently I spent some time at Bassae, in Phigaleia, obtaining new measurements of the Ictinos Temple there. We now have the data for two first-class Greek buildings by the same architect—the Parthenon, filled with subtle curvatures, and the Bassae building, a straight line structure. Of all the examples of Greek symmetry which I have examined, the Bassae structure is the simplest."

R.I.B.A. Visit to Westminster Hall.

The Art Standing Committee are organising a series of visits by Members and Licentiatees to buildings of interest in London and the neighbourhood. The first will take place on Saturday, 5th March, at 2.30 p.m., to Westminster Hall, to inspect the work of repair to the roof which is being carried out by H.M. Office of Works under the direction of Sir Frank Baines, C.B.E., M.V.O. As the work is now nearing completion, so favourable an opportunity to examine the old roof at close quarters and see what is being done to repair, strengthen and maintain it, is not likely to occur again for the present generation of architects. The number of visitors is strictly limited, and as their names must be made known to the authorities, Members and Licentiatees wishing to join the party should notify the Secretary R.I.B.A. not later than Tuesday, 1st March.

London University Site: Holland Park or Bloomsbury.

Discussing in *The Times* of the 8th inst. a possible Holland Park site for London University, consisting of an unbuilt-on area at least four times the size of the Bloomsbury site, which is available for immediate use at a price infinitely more favourable than the Bloomsbury site, Captain George S. C. Swinton says:

Here, then, are some points for the consideration of the public. London University should be set down to-day where London will want it hereafter. If it is to be healthy it must always grow, and it should last as long as London lasts. To every individual professor or student there will come a time of arrested development, and then death; but the University will live on, and together with its teaching and its traditions should grow its buildings, its schools, workshops, and laboratories, not as an unplanned mass, but spaced so that all may severally expand. This necessitates a wide site with ground reserved all over it. The curse of every centre of population is that in days gone by men did not look far enough ahead or think big enough.

Let the public, then, compare the two propositions, Holland Park and Bloomsbury, one a simple town-planning scheme on open ground, the other an unnecessary destruction and costly reconstruction of many unoffending buildings and streets.

Mr. Fisher has said that he desires to create a university quarter. For this the first, with its trees, its lawns, its facilities for recreation, its great historic house steeped in literary traditions, is ideal; while it is surrounded by a residential neighbourhood sparsely covered by other houses, big and little, and so suitable to all purses, ensuring a "quarter" capable of indefinite expansion. At present it cannot be claimed as central, but the centres of London change with every generation, and it is, at any rate, easily accessible by every form of up-to-date locomotion, and close to the numerous educational activities located in South Kensington.

On the other hand, consider Bloomsbury, central unquestionably, but hemmed in between the three great northern railway termini, the crowded shopping districts of Tottenham Court Road, Oxford Street, and Holborn, and the ever-encroaching City. A hundred and fifty years ago it was beautifully laid out as a residential quarter, but it is now in process of being exploited for offices and hotels.

In these days, when town-planning is our latest science, who can hesitate between the two?

Can, then, the matter be reopened, or is it too late? For votes have been given and decisions arrived at.

The University Senate, by a large majority, are tied to University College. The Government, who are responsible for housing the University, are, we are told, pledged to buy this property—for some purpose or other—from the Bedford estate.

The London County Council is committed, having, last October, after heart-searchings prolonged over seven years, agreed by a very small majority to support the Bloomsbury site; but, apart from its duties to the University, the Council represents every Londoner, and London cannot fail to be interested in the disposal of the last large unbuilt-on space available for her service.

There remain the taxpayers and the ratepayers, who have to collect the money. It is for them to see that they get the best value. Let them be "canny," and remember that their University must be made a pleasant place, so as to tempt not only the student but the architect, and his patron, the generous benefactor.

Since the above was written it has been announced that the negotiations which have been proceeding between the Duke of Bedford and the Government for the sale to the latter of the freehold site of 11½ acres at the back of the British Museum, for the purpose of the University of London, have now been completed, and the contracts have been signed and exchanged. Taken in conjunction with the resolution of the Senate of the University of London in favour of acquiring the Bloomsbury site, this announcement apparently marks a considerable step towards a solution of the problem of housing the University. It has, however, to be borne in mind that, whether the University had adopted the Government's offer or had rejected it, the Government would have acquired "the land behind the British Museum." The selection of the site, important as it is, leaves very serious questions still to be settled, including the amount, if any, of the State contribution towards the cost of the buildings to be erected, and also the question of the grant for the same purpose by the London County Council. Up to the present no definite sum has been mentioned as the price of the Bloomsbury land, nor have the terms of the purchase in other respects been divulged. The complicated questions remaining for treatment before the Bloomsbury scheme can be regarded as finally and irrevocably adopted are indicated in the exhaustive report which was made last summer by Mr. F. W. Hunt (Valuer to the London County Council).

At the Meeting of the London County Council held on the 15th inst., Captain Swinton moved: "That, in view of the importance (i) of obtaining for the University of London a site commensurate in all respects with the educational and other interests involved, (ii) of securing the most far-reaching advantages possible in the situation and development of a University quarter, both from the point of view of town-planning and amenities of situation, (iii) of the fact that a site of ample size, for both present and future requirements, and convenient situation from the points of view of access and development, is now available at Holland Park, at a capital cost considerably less than

that involved by the far smaller site at Bloomsbury, (iv) of the Council's commitments in relation to the cost of buildings on a new site for the University, and (v) of the necessity for the greatest possible conservation of financial effort in the interests of London's ratepayers of all classes, it be an instruction to the Education Committee forthwith to confer with the Improvements and Building Acts Committees on the question of the site at Holland Park for the University, and to report fully to the Council thereon, setting out in detail all the considerations involved, and submitting a recommendation so drawn as to give the Council an opportunity of arriving at a decision in the matter with due regard to the development of London and other large questions of policy involved." The Council agreed to instruct the Education Committee to confer with the other Committees mentioned and to report.

Westminster Abbey and Canterbury Cathedral.

Mr. W. D. Caröe, F.S.A. [F.], in a letter to *The Times* of the 8th inst. on the subject of the upkeep of Westminster Abbey and Canterbury Cathedral, urges immediate action being taken by the Government to secure for all time the amenities of the Abbey and Houses of Parliament "in the prevention of impinging commercial buildings which would destroy the Abbey's river aspect and that of the great group of national buildings of which it forms the nucleus." This desirable end can be attained. Mr. Caröe shows, by the acquisition of a small site on which most of the leases are just expiring—only nine small houses.

Passing to the fabrics themselves, Mr. Caröe points out that the structural needs of the Abbey and Canterbury are very different. "The exterior of the Abbey preserves only a few remnants of ancient stone. The greater part of its ancient external detail and the form of many of its features are either lost or conjectural. Surface security thus demands only the wise direction of sound workmanship and the selection of a safe stone. That most important, but at the same time most difficult part of the preservers' art and skill, the conservation of antiquity, is virtually absent from the Abbey so far as its exterior is concerned. That problem is by no means absent from the exterior of Canterbury, despite the early nineteenth century restorations which went far beyond the actual needs of the time. The present pinnacles of the nave, now, because an ill-selected stone was used, mere decayed remnants, belong with much other decaying work to that unhappy period, and thus present only much the same problem as at Westminster. But there are fortunately large tracts of ancient stone and detail left to us, albeit suffering from the attack of our modern smoke-charged atmosphere. In the last 25 years we have set ourselves to preserve rather than to renew, wherever preservation was in any way possible. Exhaustive experiments to this end have been made, and the modest figure asked for by the Dean* marks the fact that such preservation is much the more economical process. But, to be continually effective, such processes must be repeated from time to time, and the due time when repetition has become urgent is already

past, owing to the war. If the imperative but modest demand cannot be met, the time is not far distant when the more expensive but certainly less interesting and desirable process of renewal in some form will have to be faced. It is to be hoped, therefore, that the Dean's effort to secure the stitch in time may, even in these hard times, meet with the ready response it deserves."

Higher Buildings for London.

The *Observer* of the 6th inst. published the following from Mr. Delissa Joseph [F.] :—

In a recent issue of the *Observer*, Sir Leo Chiozza Money remarked that there has been much talk of introducing "skyscrapers" into London, and proceeded to show the "skyscraper" had been found to be uneconomic, inasmuch that the increased cost of foundations and the increased cost of building above a certain height does not show an economic return. But, as a matter of fact, there has been no serious talk of introducing "skyscrapers" into London, and therefore the question of economic height does not arise.

The suggestions put forward by me, and eventually incorporated in the Paper I read before the Royal Institute of British Architects, were for the modification of the London Building Act of 1894, so as to enable higher buildings to be erected in suitable positions, and with appropriate safeguards. I suggested that these buildings might, when facing parks, open spaces, and the riverside, be permitted up to 200 feet in height, as against the 100 feet buildings which can be erected under the present Act, and it is obvious that there is a very wide difference between "skyscrapers," which are anything up to 750 feet in height, and high buildings, as advocated by me, which will be limited to 200 feet, and which will then only be permitted in suitable situations.

No question of economic height arises in a 200-foot building, and there can be no doubt as to the value of such buildings from the point of view of investment, but I have formulated my proposals upon more general grounds.

It is obvious to an ordinary observer that Central London, whether for residential or commercial purposes, is under-developed, and that this under-development is the cause of the lack of adequate accommodation both for business and residential purposes in the comparatively restricted area which we call Central London. To supply this need, the only solution is to build upward, and circumstances have so changed since the Building Act of 1894 was passed, that higher buildings may now be contemplated with equanimity. With fire-resisting construction, with alternative means of escape, with alternative lifts, and with fire hose at each floor level, safety and convenience can be readily attained; whilst, as regards design, if, as is admitted, much beauty can be secured even in a 750 feet "skyscraper" there can be no difficulty in producing satisfying architectural effects in buildings 200 feet high.

Apart from all this, the increased accommodation would carry with it increased assessments, and upon this increased rateable value loans could be raised by the local authorities, and the proceeds employed in the widening of existing congested thoroughfares.

The case for higher buildings, although it has only been before the public for the past twelve months, has aroused a remarkable amount of interest, and is rapidly approaching a practical stage. The Royal Institute of British Architects have appointed a Special Committee to investigate the matter and to formulate a scheme.

* See JOURNAL, 5th February 1921, p. 204

Sta. Sophia, Constantinople.

Professor F. M. Simpson [F.] in his paper on "Sta. Sophia, Constantinople, and the Mosques at Constantinople and Brusa," read before the Royal Archaeological Institute on the 2nd February, referring to the letters which have appeared in the papers advocating that the Church of S. Sophia having been built by Christians for Christian worship should now revert to Christians, says:—I confess I have little sympathy with the idea.

To whom would it revert? To the Church of Rome, whose adherents sacked, despoiled, ruined it in the 13th century: who left nothing but the building itself, which they could not take away with them? That hardly sounds fair.

To the Reformed Church of the West? That did not come into existence until 1,000 years after S. Sophia was built; not, in fact, until after the church had passed out of the hands of Christians into the hands of Mohammedans.

To the Greek Church? A case might be made out. S. Sophia was designed by Greeks, decorated by Greeks, enriched by Greeks and other adherents of the Eastern church. It was ruled by the Patriarch of Constantinople when it was despoiled by Western Christians; and was still under him when later both church and town fell into the hands of the Turks. Should it be handed back to the Greek Church? Would anyone in England or in France like to see Athens its possessor? Would the Turks stand such a solution? Would they part with the building they prize most in the world to their hereditary enemies? I doubt it. If that decision were arrived at, not much building, I fancy, would be left to be handed over.

The Turks have preserved S. Sophia, have revered it, worshipped in it for nearly 500 years. Moreover, they have, as I have pointed out in my lecture, taken it as their model for all their big religious edifices, their mosques, not only in Constantinople but throughout their empire. They alone amongst the nations have learned, followed and benefited by the great architectural lessons of plan, construction, and general ordinance which S. Sophia teaches. The Western world ignored them entirely during the 900 years when S. Sophia was a church. From the architectural standpoint, therefore, at least, the Western world cannot now fairly claim possession.

A mixed committee of control has been suggested. We have experienced in England since the war the results of only one Government exercising control in building affairs. What would result if half a dozen Governments had a finger in the pie?

Portions of S. Sophia, I regret to read in the papers, are now in a dangerous condition. They require prompt attention. They are not likely to receive it from the Turks whilst the present uncertainty exists as to the future destiny of this great building. Prompt attention cannot come from a mixed committee. The Millennium has not yet arrived.

Let the Turks keep S. Sophia; and let them be told

quickly that they may keep it. That, in my opinion, is the only course possible by which this noble work of art can be preserved to posterity.

Domestic Architecture of the Roman Imperial Period in Italy.

Dr. Thomas Ashby, in *The Times Literary Supplement*, gives an account of recent archaeological research in Italy. He says:—

The much-discussed round reliefs on the Arch of Constantine have now, with considerable show of probability, been announced by a German scholar to have been taken from a monument erected to Fortuna Redux to celebrate that Emperor's safe return to Rome after hunting expeditions in various parts of his dominions. Remains which appear to belong to the portico which enclosed the two temples in the Piazza San Nicola a' Cesarini have recently been recognised, and have been identified with the Porticus Octavia erected by Cneus Octavius, the conqueror of Perseus of Macedon, a little after 168 B.C., and restored by Augustus. Its columns had bronze capitals, and it was therefore also known as Porticus Corinthia. The two temples are themselves identified with the temples of Juno Regina and Diana, dedicated by M. Aemilius Lepidus, the conqueror of the Ligures, in 179 B.C. *in circo Flamiano*. . . .

Among the most important results of the excavations at Ostia is the new light which has been gained in regard to the domestic architecture of the Roman Imperial period in Italy. We have hitherto been accustomed to regard the Pompeian house as typical, and to regard it as an exception which required explanation when one of the types of atrium enumerated by Vitruvius was not forthcoming. But Ostia has, so far, produced only one Pompeian house, though the remains of another belonging probably to the early Empire, with mosaic and marble pavements of great beauty, have recently been brought to light under later constructions. For the rest, as I have already pointed out (see *The Times Literary Supplement*, 11th May 1916), the type of house which we find at Ostia corresponds far more closely to the modern apartment house than any other.

Calza has recently published an interesting study of an important group of houses belonging to the time of Hadrian, occupying the greater part of a block the rest of which was taken up by a row of thirteen shops,* and united by a common façade, originally four storeys high, though not now preserved above the first floor. The owner apparently took possession of the ground floor of the corner house, while above it were two small apartments, which could be let off separately: and the fact that one of these was incorporated at a later period with the house below, together with the presence in the latter of some graffiti of a somewhat equivocal character, has led Calza to conjecture that the place may have been an inn. The two smaller houses were identical in plan and size, and each no doubt contained several flats one above the other, let to different tenants: the garden gave light and air to these apartments, which, at any rate on the ground floor, had large windows opening on to it, while the large house, which preserves a good deal of the traditional plan, had a large *tablinum* at one end of the garden, lighted by a small courtyard (in a sense an *atrium*, but entirely open on one side), but for the rest, standing as it did at a corner, had most of its rooms facing on the street.

All the houses are decorated with mosaic pavements and paintings, the most important so far found in Ostia, though a good deal inferior to Pompeian examples, being characterised by a fusion of elements of the second, third, and fourth styles, which is not very successful.

* The row of shops and the street on to which they faced

* It is noticeable that these two constructions, in obedience to the building laws of Nero, have not a party wall, but two separate walls, with an interval of 2 feet between them.—T. A.

were abandoned as early as the end of the third century after Christ, owing, it would seem, to a lessened demand for accommodation. . . . Excavation is still being actively carried on, and another large house which promises to be of a type similar to that of the so-called Casa di Diana, with vaulted passages in a very good state of preservation, is still being cleared.

Palestine Exploration: Excavation at Ascalon.

Describing recent archaeological research in Palestine, a special correspondent of *The Times* says that the chief feature of the last year has been the opening of the work at Ascalon, which has been undertaken by the Palestine Exploration Fund. The results are not yet published, but are of remarkable promise. A very fine building of Roman date—namely, a massive temple or forum built entirely of Greek marble, possibly the Temple of the Fortune or City Goddess—was one of the wonders discovered. The columns of this building weighed nine tons each, and the capitals three tons. The whole structure, including floors, walls, and columns, is entirely of marble. It is presumed that the building was prepared in one of the Greek islands and transhipped ready for construction to Ascalon during the first or second century of our era. Traces have been found of a sacred well mentioned in one of the early writers, possibly a remnant of the earlier sacred lake of the famous goddess Derceto.

Ascalon was the home of Herod the Great, and we are told in early literature that he greatly embellished the city with splendid colonnades. It will in time be possible to recognise these. One of the objects discovered is a gigantic foot, measuring over a yard from heel to toe, wearing a sandal, the whole in alabaster, possibly part of a huge statue of his time. The chief interest to the scientific world is the effort which the Palestine Exploration Fund is making to recover some tangible remains of the Philistines and their civilisation, and it is believed that the layers representing this period have been located, as well as some objects illustrating their civilisation. Unfortunately, the Philistine layer is at a great depth, five to seven metres (16 feet to 23 feet) below the surface, and all those interested in the development of our knowledge of Palestine in Bible times must realise that the work of the fund can only be adequately done if adequately supported.

The Rome Scholarship in Architecture.

The works submitted in open competition for the Rome Scholarships in Architecture, Painting, and Sculpture, have been on view for the past fortnight at the Royal Academy. The subject for this first stage of the competition for the Architectural Scholarship is "A National Pantheon." The conditions state that the building should be: "A domed structure of surpassing dignity and beauty, the dome to have an internal diameter of 130 feet, and the structure to be erected in a lake covering 1,000 acres. It is to be approached by a causeway designed so that a funeral car can be rolled into the building, and will stand in the centre of the building under the dome. The centre of the building cannot be more than 800 feet from the shore. The object of the Pantheon is to give equality of record, irrespective of all creeds, to the names of those who have rendered, and may yet render, great service to the Empire. The ground surrounding the lake is park-like and generally level and featureless, save for the ancient trees, and the great avenue, running west to east, terminates on the shore of the lake. The water level is 2 feet in winter and 5 feet in summer below this avenue. Public opinion will not allow any of the

trees to be destroyed, so there is no space on the land practicable for building. No accommodation is required for caretakers, etc., as the existing Park Establishment is amply sufficient to provide all necessary services and control."

The adjudicators were Sir Reginald Blomfield, R.A., Litt.D. [F.], Mr. Ernest Newton, C.B.E., R.A. [F.], and Mr. Curtis Green [F.].

There were 18 competitors, and the following seven have been selected for the final competition:—Messrs. Eric R. Arthur (Liverpool School of Architecture), S. Roland Pierce (Architectural Association Atelier), Edward W. Armstrong (Architectural Association Atelier), William J. H. Gregory (Liverpool School of Architecture), Bernard George (Architectural Association Atelier), Bernard A. Miller (Liverpool School of Architecture), James H. White (Architectural Association Atelier). These seven competitors will take part in a final competition to be held *en loge* in London. The successful candidate in this competition will be recommended for appointment to the Rome Scholarship, and the Student or Associate R.I.B.A. who is placed next in order of merit will be recommended for appointment to the Jarvis Studentship of £250 per annum tenable at the British School at Rome for two years.

The Kelvin Gold Medal.

Dr. W. C. Unwin, F.R.S. [*Hon. A.*], has been awarded the first triennial Kelvin Gold Medal, he being, in the opinion of the Committee, after their consideration of representations received from leading engineering bodies in all parts of the world, the most worthy to receive this recognition of pre-eminence in the branches of engineering with which Lord Kelvin's scientific work and researches were closely identified. The Kelvin Gold Medal was established in 1914 as part of a memorial to the late Lord Kelvin and in association with the window placed in Westminster Abbey in his memory by British and American engineers. The Award Committee consisted of the presidents of the principal representative British engineering institutions.

The Scottish Building Guilds.

At the first conference of the Scottish Building Guilds, held at Glasgow recently, the following resolution was passed: "That, having regard to the attack made upon the Building Guild by the Ministry of Health and the master builders, this conference of Scottish Building Guilds, having before it the result of Guild building in England, particularly in South Wales, Lancashire and Yorkshire, where the Building Guild is erecting artisan houses at £150 per house cheaper than the master builders in the same localities, and realising that this result is in part due to the security of employment obtained by the system of 'continuous pay,' urges upon the Government the necessity for recognising this continuous pay as an economic charge upon the building, and in no sense as remuneration."

New Methods and Materials.

The following new methods of house building and new materials have been approved by the Standardisation and Construction Committee of the Ministry of Health:—

The Weardale Steel, Coal and Coke Co., Ltd., Thornley Colliery.—The "Hoop" Principle of Reinforcement for Concrete Houses.—This system is composed of 3 feet by 1 inch by $\frac{1}{16}$ inch octagon hoops, with angle stanchions, 6 feet by $\frac{1}{2}$ inch, fixed between each hoop, forming a tie for the clinker blocks of the inner lining. By this method of construction, all doors, windows and floor joists can be erected on the hoop framing before concrete work is started.

B. L. Bendall, 14, Richmond Wood Road, Bournemouth. The "Bendall" Walling System.—With this system it is possible to construct the walls with concrete without timber shuttering, and, if necessary, with unskilled labour, by facing the exterior with clay or concrete tiles and the interior with clinker slabs tied together with high tensile steel wires, the cavity being filled with wet concrete.

Lady Baker, Owermoigne, near Dorchester.—The "Baker" System of Construction.—This is a system of block construction with hollow-grooved and tongued fire-clay bricks, the bricks being 12 inches by 6 inches by 2 inches thick, with $\frac{1}{2}$ inch webs. For exterior walls two thicknesses of brick are used with a 2-inch cavity between, the two walls being bonded together with special grooved and tongued bonding bricks.

W. McLeod, c/o Bank of New Zealand, 1, Queen Victoria Street, E.C.4.—A system of walling consisting of thin bottomless boxes of concrete or burnt clay. The main units are 12 inches long and 5 inches high, and of three thicknesses—4 inches, 7 inches and 9 inches. (Special units are also made.) These are laid breaking bond on top of each other without mortar and filled in solid with wet concrete.

OBITUARY.

Sir William Richmond, K.C.B., R.A. [*Hon. A.*]

Sir Wm. Blake Richmond, K.C.B., R.A., died at his house, Beavor Lodge, Hammersmith, on the 11th inst., at the age of seventy-eight. He was elected an Hon. Associate of the Institute in 1894, having at the time as a fellow member of the class his father, George Richmond, R.A. [*Hon. A.* 1877-97]. Till health began to fail him in recent years his presence at the Institute meetings when art subjects were under discussion could generally be counted upon. He served upon the Art Standing Committee for some years, and read the following Papers before the Institute: "The Collaboration of Architect, Painter and Sculptor" from the point of view of the Sculptor" [*JOURNAL R.I.B.A.*, Vol. VII., Congress Supplement]; "Decorative Painting" [*ibid.*, Vol. XII., p. 313]; "Coal Smoke Abatement" [*ibid.*, Vol. IX., p. 221]. We are indebted to *The Times* of the 14th for the following interesting notice of his career:—

If heredity counts for anything in art, Sir William Richmond had every claim to be an artist, for not only was he the son of a distinguished portrait painter, George Richmond, R.A., but he was the grand-son of Thomas Richmond, a prolific and successful miniature painter, while his grandmother was the daughter of George Engleheart, the contemporary and rival of Cosway. He was born in London in 1843, and, partly for reasons of health, was educated privately: which, as his parents were highly cultivated people and their house a centre of artistic society, rather of the imaginative and even mystical type, meant that the boy was bred upon art and music. The household friends were men like Samuel Palmer and Edward Calvert, while over them all there brooded the revered memory of William Blake, to walk with whom, George Richmond used to say, "was like walking with the Prophet Isaiah."

After this friend of his father, William Blake Richmond was named. In early boyhood he had a passion for music, but before he was fourteen he had turned to drawing, and entered the R.A. schools. At this date, and later, he was much influenced by the group of pre-Raphaelites, men

several years older than himself and already coming to the front—Holman Hunt, Millais, and Burne-Jones—and perhaps still more by their great literary advocate, John Ruskin. Partly stimulated by them, and partly by a first visit to Italy, he painted several pictures, chiefly illustrating poetical or classical legend, or Bible stories: a class of work which he preferred above all others, even when he had become, during the 'sixties and 'seventies, a favourite portrait painter. We may so far anticipate matters as to say that the pictures at which he worked hardest, and into which he put most of himself down to the end of the century were such as "The Death of Ulysses," "The Song of Miriam," and, best of all, "An Audience at Athens during the Performance of the *Agamemnon*." Several of these are in public galleries: the last-named is at Birmingham, where, in spite of the modern reaction in favour of a more realistic art, it still compels admiration.

The same may still be said of several of the portraits, especially the "Lady Hood," the "Andrew Lang," and the beautiful "Three Daughters of Dean Liddell," a work of about 1870. The picture of Lang in particular is admirable not only for its design and execution, but for its grasp of character. Richmond had many sitters among eminent men: Mr. Gladstone sat to him twice: he painted Darwin and Browning: and in 1887, while we still thought Germany friendly to us, he went to Berlin and painted Prince Bismarck.

At a later stage he was given the formidable commission to decorate St. Paul's Cathedral in mosaic, and to this work for many years he devoted his utmost energies. There were many who thought it a mistake to attempt such a colossal undertaking, seeing that it is quite uncertain whether Wren ever contemplated anything of the kind for his great church, and seeing also that mosaic decoration has never taken real root in England; but Richmond was courageous enough to make the effort, filled as he was with Italian memories and Italian ideas. As everybody knows, the work so far as it has gone, has been as much attacked as praised. We shall not venture to decide between the critics and the admirers. It may be enough to say that Richmond's solid reputation will rest rather on his portraits, often beautiful and always full of the truth of character, and upon some at least of his large "historical," or rather ideal, pictures, of which the "Audience at Athens" has perhaps the most enduring merit.

Sir William Richmond, who had known and loved Assisi well since 1868, when he first spent a summer in that city, published, in 1919, *Assisi: Impressions of Half a Century*. In this book recollections of days of blissful work with his paint-box, among kindly friars and genial farm folk, mingle with his discourse on the upper and lower churches, San Damiano, the Carceri, the hills and valleys of the neighbourhood. A number of his own sketches, reproduced in colour, illustrate many of his reminiscences. . . .

Sir William Richmond succeeded Ruskin as Slade Professor of Fine Art at Oxford (1878-83) and received the Hon. D.C.L. degree. He became R.A. in 1895, and was created K.C.B. two years later. In 1867 he married a daughter of Mr. William Richards, of Cardiff, and, with his wife and family, was for many years the centre of an interesting group of friends. His home, Beavor Lodge, Hammersmith, is a charming house in the midst of a large, old-world garden.

The late Mr. E. W. Cox.

The death is announced, at the age of eighty-two, of Mr. Edward Webster Cox, J.P., Chairman of the Directors of *The Builder*, Ltd. Mr. Cox had been associated with *The Builder* since 1855, and for the past forty years had watched over its policy and managed its financial affairs. Essentially a business man, the best years of his life (1864-99) were given to the Land Securities Co., Ltd. He was a Liveryman of the Stationers' Company, was called to the Court in 1905, and served the office of Master in 1908-9. He was a member of the Church Missionary Society, and was proud to be known as the father of five missionaries. A note in *The Builder* of the 11th inst. says: "The success and high standing of *The Builder* constituted one of the most important objects of his life, and it may truthfully be said that the position which the paper occupies to-day is in no small measure due to the zealous care with which he watched over it up to the very day of his death." Mr. Cox's death was mentioned at the Institute Meeting last Monday, and a vote of condolence was passed to the proprietary of *The Builder*.

ALLIED SOCIETIES.

South Wales Institute of Architects (Western Branch).

On Tuesday evening, 1st February, a large and appreciative audience assembled at the Royal Institution of South Wales, Swansea, for the third of a series of monthly free public lectures organised by the South Wales Institute of Architects (Western Branch). The lecturer, Mr. W. S. Purchon, M.A., A.R.I.B.A. (Head of the Department of Architecture and Civic Design at Cardiff Technical College), dealt with the subject of "The French Achievement in Architecture," and traced the progress of the art of building in France from Roman times through the Romanesque and Gothic periods to the culmination of the Renaissance in the seventeenth century and the decline in the eighteenth century. He also contrasted the condition of Civic Planning in France with that in England, and illustrated his points with lantern slides. The meeting was presided over by the Director of Education for Swansea (Mr. T. J. Rees, B.A.), who expressed the hope that the School of Architecture at Cardiff would flourish under the able direction of its present head and would become second to none in the kingdom. It had the active support of the South Wales Institute of Architects. The lecture was profusely illustrated by lantern slides.

The fourth lecture of the series, to be given on 1st March by Mr. J. Alfred Gatch, F.S.A. [F.], will be on "Domestic Architecture of the Eighteenth Century."

Birmingham Architectural Association: Mr. H. B. Creswell on Pecksniff, the Architect, Artist and Man.

The eighth general meeting of the session of the Birmingham Architectural Association was held at the Queen's Hotel, Birmingham, on 11th February, when the President, Mr. H. T. Buckland [F.] occupied the chair. Mr. H. B. Creswell [F.] read a paper entitled "Pecksniff, the Architect, Artist and Man." The lecturer said he had observed that papers read before Architectural Societies, however valuable they might be as contributions to the science and the art, were uncommonly hard to listen to, and with the example of the London Architectural Association before him, he had decided to choose a playful subject rather than a learned one. He had therefore taken the opportunity of

tracing out exactly what Dickens had in mind when he drew the famous character of Pecksniff, pointing out that the novelist did not regard him as the good joke his readers found him to be, but rather piled abuse on him, seeming to resent him with a bitterness which suggested that Dickens had suffered at the hands of Seth Pecksniff in real life. On this account, the fact that the author had represented a mean scamp as being an architect was a matter for serious self-examination by members of that profession. A very close reading was necessary to reveal what Dickens' ideas on Pecksniff's professional accessories, status, and surroundings were. Such a reading would show an almost perfectly consistent picture, indicating that Dickens had not made a study of his subject, but had drawn on his observation, filling in the touches as his art required. The lecturer displayed a plan of Pecksniff's house, which he had reconstructed from hints scattered throughout the novel, and read extracts setting forth Pecksniff's ingenious system of capturing orphans with four or five hundred pounds, and binding them to himself as pupils, with the added obligation of paying seventy pounds per year for board and lodgings in his house. This the lecturer compared to the present-day system of architectural pupilage, which attained the ideal of certain architects who aspired to get people to pay for the privilege of doing work for which the architect received six per cent. remuneration, the pupils' advantages being in learning how his employer liked his work done. Having dealt with Pecksniff the architect, the lecturer went on to elaborate on Pecksniff the artist and man, explaining that his art was the social art, by far the most important art an architect could study. Passages were read illustrating the three chief characteristics of the man—namely, his almost perfect self-control, his entire lack of humour and his efforts to keep up appearances.—At the conclusion of the lecture, Mr. Arnold Harris proposed a vote of thanks, which was seconded by Mr. S. N. Cooke, and carried unanimously.

Reading Society of Architects.

The first annual meeting of the Reading Society of Architects was held in the Chamber of Commerce Meeting Room on the 19th ult. Mr. Charles Steward Smith [F.], in the chair. The chairman said that the Society, which already numbered thirty-five members, should be of considerable value to the profession, especially to the younger members, for whom competitions and visits to works in course of erection would be arranged. The formation of a Berks, Bucks and Oxon Architectural Association was being considered, and it was expected would be organised shortly. Mr. Whiteman Rising said that it was proposed to form both a reference and a loan library of books on architecture, and that he would be glad to hear from all members who would lend or give books to the Society. The Council for the coming year were elected as follows:—President, Mr. Chas. Steward Smith [F.]; Vice-Presidents, Mr. W. Galt Millar [F.] and Mr. W. Rowland Howell [F.]; Treasurer, Mr. J. H. Goodman; Librarian, Mr. H. Whiteman Rising [F.]; Secretary, Mr. C. B. Willocks [F.]; Members, Mr. F. G. Sainsbury [F.], Mr. W. J. Freeman [F.], and Mr. H. E. Watkins [F.].

The Old General Post Office.

It is reported that the Government has decided not to build on the site of the old General Post Office in St. Martin's-le-Grand, and that the Corporation of London has been offered the refusal of the site, which it may acquire in connection with the St. Paul's Bridge scheme.

MINUTES. VIII.

At the Eighth General Meeting (Ordinary) of the Session 1920-21, held Monday, 14th February 1921, at 8 p.m.—Present: Mr. E. Guy Dawber, F.S.A., *Vice-President*, in the Chair; 33 Fellows (including 12 members of the Council), 34 Associates (including 3 members of the Council), 6 Licentiates, and several visitors—the Minutes of the Meeting held 31st January having been published in the JOURNAL were taken as read and signed as correct.

The following members attending for the first time since their election were formally admitted by the Chairman:—Clifton Robert Davy, John Thomas Saunders, and Peter Gaskell, J.P., *Fellows*; Albert John Butcher, Mordaunt Henry Caspero Doll, M.A. Cantab., and Frederick Charles Langrish-Toye, *Associates*.

The Hon. Secretary announced the decease of Sir William Blake Richmond, K.C.B., R.A. [*Hon. Associate*], and having referred to his long connection with and his services for the Institute, it was RESOLVED that the regrets of the Institute for his loss be entered on the Minutes of the Meeting and that a message of the Institute's sympathy and condolence be communicated to Lady Richmond and family.

The decease was also announced of Mr. Edward Webster Cox, Director of *The Builder*, Ltd., and a vote of condolence was passed to the proprietors of the paper.

Mr. W. E. Willink, M.A. Cantab. [F.], having read a Paper on THE CUNARD BUILDING, LIVERPOOL, and illustrated it by lantern slides, a discussion ensued, and on the motion of Professor S. D. Adshead, M.A. [F.], seconded by Mr. H. T. Desch (of Messrs. Cubitt & Co.), a vote of thanks was passed to Mr. Willink by acclamation.

Mr. Willink having responded, the proceedings terminated, and the meeting closed at 9.40 p.m.

The New County Hall.

It was stated at a recent meeting of the London County Council that the total estimated cost of the new County Hall will be £4,344,000, exclusive of furniture. The following figures show how, in thirteen years, the various estimates for the building have risen:—1908, £870,000; April 1919, £1,620,000; January 1920, £2,000,000; July 1920, £3,500,000; November 1920, £4,344,000.

The Measurement of Output in Building.

On the 15th March Mr. T. Sumner Smith, M.Q.S.A., will read a Paper on the above subject at the Central Hall, Westminster, Sir James Carmichael in the Chair. The meeting is being held under the auspices of the Institute of Industrial Administration, and the Board of Management invite members of the R.I.B.A. to attend and take part in the discussion.

The City Churches.

Lord Robert Cecil, M.P., a member of the Bishop of London's Commission, will give an address on "The Problem of the City Churches" at the Church of St. Alban, Wood Street, on Wednesday, 23rd February.

Honours and Appointments.

At a General Assembly of the Royal Scottish Academy, held at Edinburgh on the 9th inst., Sir Robert Lorimer, A.R.A., A.R.S.A. [F.], was elected to full rank as Royal Scottish Academician.

Mr. Gilbert H. Lovegrove [F.], F.S.I., has been appointed Surveyor to the Honourable Artillery Company, following the resignation of Mr. William Woodward [F.].

THE EXAMINATIONS.

Probationers R.I.B.A.

Since the 1st January, 1920, the following have been registered as Probationers of the Royal Institute:—

Astbury: Frank Nicholas, 13 Wolverhampton Road, Stafford.
 Ashley: Francis Edgell, Lincoln House, Teddington.
 Ainslie: Edward Reginald Campbell, The Vicarage, Hedon, nr. Hull.
 Applegath: Thomas Wilham, 4 Cromwell Road, Teddington, S.W.
 Anderson: Harry, 116 Hurdfield Road, Macclesfield.
 Ablett: Herbert Kellett, 49 Norwood Crescent, Southampton.
 Barton: Vincent Albert Mead, 4 Gt. Percy Street, W.C.1.
 Bolton: Joseph, "Beaumont," Heaton, Bolton.
 Bush: Phyllis Madeleine H., 58 Downs Pk. E., Westbury Park, Bristol.
 Button: Eustace Harry, 1 Royal Park Crescent, Clifton, Bristol.
 Bartlett: Christopher Essex, 2 Chisholm Place, Hexham-on-Tyne.
 Branson: Percy Kenneth, 123 St. Saviour's Road, Leicester.
 Brice: Castledine Kempton, "Trefala," St. Thomas, Swansea.
 Brown: Henry Herbert, 34 Metal Street, Roath, Cardiff.
 Baldry: William Caparhe, 69 Forest Road, Northham.
 Bragg: George John, 21 Clements Road, East Ham.
 Beaufoy: Samuel Leslie, 163 Tutnell Park Road, N.
 Bloomfield: Henry Lancelot, "St. Edmund," Rothsay Road, Luton.
 Barrett: Wilfrid Charles, Windmill Cottage, Manor House, Northfield, Birmingham.
 Birkumshaw: James Hy. Bernard, Braemar, Holmegate, Claycross.
 Bartlett: Douglas Robert, "Ambleside," Landguard Manor Road, Shanklin, I. of W.
 Bottomley: Jack, 27 Lane End, Baildon, Shipley, Yorks.
 Barlow: Arthur Middleton, 111 Monton Road, Eccles, Manchester.
 Barrow: Vivian John Lewin, Burton House, Burton, Carnforth, Lancs.
 Baylis: Frederick John, St. Martin's Villa, Mt. Charles, St. Austell.
 Blake: Donald, "Cleveland," "The," "St. Austell."
 Bonehill: Albert Leonard, 24 T. "The," "St. Austell."
 Bryant: Crawley, 60 Diana Str. "The," "St. Austell."
 Ballard: Ewart, "Clovelly Ho.," Hornsea, E. Yorks.
 Brimblecombe: J. Wyndham, Croxhall, Langford, Wellington, Somerset.
 Bradford: Stanley V., Spring House, New Upperton Rd., Eastbourne.
 Brown, Henry, 18 Central Road, Blackpool.
 Brooke: Donald, 20 College Avenue, Gt. Crosby, Liverpool.
 Bennet: James Spalding, 156 Braid Road, Edinburgh.
 Baker: Raymond Alfred, 73 Richmond Road, Freemantle, Southampton.
 Brightiff: Kenneth Ross Hutton, 6 Rutland Park Mansions, Walm Lane, Crickwood, N.W.
 Barker: Alfred Kenneth, 29 Divinity Road, Oxford.
 Black: Norman Harrison, School of Architecture, Liverpool University.
 Borrett: Albert Reginald, Eton Cottage, Eton Wick, Bucks.
 Bridge: Edward Eric, 505 West Derby Road, The Brook, Liverpool.
 Backway: Gerald Henry, 22 Birdhurst Road, East Hill, Wandsworth.
 Biddulph: Alan Joseph, 42 Orchard Road, Erdington, Birmingham.
 Chester: Harold William, "Emberfield," Broom Road, Hampton Wick.
 Clarke: Stanley Herbert, "Thorncliffe," Bacton Rd., North Walsham.
 Cox: Richard George, 4 Balhol Road, W. Kensington, W.
 Crowther: Joseph Dickenson, 21 Dragon Parade, Harrogate.
 Cutbush: Patrick, "Kerri," Aikley, Barnet, Herts.
 Cuthbertson: Dale, 2 Gisedale Street, High Westwood.
 Coombes: Robert Edwin Montagu, 3 Eastgate, Lincoln.
 Cole: Eric, Commerce House, Leckhampton, Cheltenham.
 Cooper: Arthur Wellesley, Church Street, Shipton-on-Strour.
 Cooper: John Brian, 112 Clarence Avenue, Northampton.
 Cutting: John Bryden, 4 Farquhar Street, Jesmond, Newcastle-on-Tyne.
 Cowley: Arthur David Richards, "Lyndhurst," Hartford, Cheshire.
 Cox: Walter Guy, 9 Copythorn Road, North End, Portsmouth.
 Colder: Herbert Kitchener, The Schoolhouse, Kely, Fife.
 Checkley: James Frederick Hayselden, Trafford House, Station Road, Benton, Northumberland.
 Crowther: John Henry, Craig Lea, Moorlands Avenue, Dewsbury.
 Coates: Harold John, 74 High Street, Highgate, N.6.
 Callaghan: Alexander, 97 Hewerton Street, Newport, Mon.
 Clay: Ralph Henry, 23 Vinery Road, Cambridge.
 Collins: Clarence Reginald Thomas, 72 Abingdon Road, Oxford.
 Connolly: Harold, Werneth House, Walton, nr. Wakefield.
 Cleworth: Arthur William, Hanging Heaton Vicarage, Batley, Yorks.
 Disney: Charles Ronald, 5 Arlington Villas, Clifton, Bristol.
 Dawson: Henry Hardwick, 16 Melton Road, W. Bridgford.
 Dale: Samuel, 37 Morton Park, May Bank, Stoke-on-Trent.
 Dyer: Harry William James, 76 Milton Road, Portsmouth.
 Day: William Burton, "Bankfield," Davyhulme, Manchester.
 Dann: Clifford Horace, 66 Trinity Street, Norwich.

- Dawkes : William Harry Cecil, Broadway House, Wyndham Road, Abergavenny, Mon.
- Dallas : Vera Mary, 40 Arkwright Road, N.W.3.
- Dawbarn : Graham Richards, "Klamath," Station Road, Sidecup.
- Davison : Percy Victor, 18 Smith Street, Barnoldswick, via Colne, Lancs.
- Eastide : Robert Geoffrey, "Aidenholme," Snaithorne Road, Castleford.
- Eley : Thomas Henry, 17 Cambridge Gardens, W.10.
- Ehrling : Guy Edgar Septimus, Sylvaudale, Bromborough, Cheshire.
- Elford : Percy William Tapson, Raleigh House, Oreston, Plymouth.
- Elston : Ronald Fern, Ashwood Park Estate, Ashford.
- Elmhurst : Robert Frederick Joseph, 6 Edenhurst Avenue, Hurlingham, W.
- Ellis : William Cecil, 75 Layton Avenue, Mansfield.
- Eaton : Charles, 21 High Street, Witney.
- Eyes : Wilfrid Thomas, The Cottage, Scofton, Workson.
- Evans : Evan Arthur Edward, 1 Curt Ucha Terrace, Port Talbot, Glamorgan.
- Edward : Jim Grant, 293 Baitan Street, Gloucester.
- Ford : Walter Henry, 28 St. Mary's Grove, Chiswick, W.
- Freeman : Leonard Charles, Betham House, Greenford, Middlesex.
- Farman : Albert Laurence, 24 Burlington Road, Bayswater.
- Farquhar : Ludovic Gordon, St. Margaret's, Bridge of Weir.
- Finch : Joseph, 28 Magdalen Road, Oxford.
- Friend : Thomas Chamings, Boughtlycott, Barton, Barnstaple.
- Fryer : Edgar, 293A, Park Road, Dingle, Liverpool.
- Flitcroft : Alfred Crumblehulme, 172 High Street, Bolton, Lancs.
- Frost : Alfred Joseph Wheldon, Portugal House, Clytha Park, Newport, Mon.
- Garton : Samuel James, 18 Beverley Road, Barnes, S.W.
- Gibson : Geoffrey Daniel, Plas, Llanfairfechan, N. Wales.
- Gray : Douglas William, 32 Carroun Road, S.W.9.
- Gordon : Herbert Griffiths, 58 Comerswell Road, Penarth.
- Garwood : Alfred Charles, 69 Roupell Street, Lambeth, S.E.
- Glover : Archibald William, 15 Bigby Street, Brigg.
- Gower : John Charles, 1 Caroline Terrace, Briton Ferry.
- Green : Frank Stanley Morden, 272 Willesden Lane, N.W.2.
- George : William, Chavey Down, Bracknell.
- Golding : Alfred, 42 Rosebery Avenue, Westoe.
- Griffin : Cyril George, Clipstone Avenue, Mansfield, Notts.
- Gumsey : Godfrey John Allan, 54 Linden Avenue, Kensal Rise, N.W.10.
- Graham : Angus Norman, 47 Kenneth Street, Stornoway.
- Goodin : Frederick Glanville, 36 Western Elm Avenue, Reading.
- Gray : Charles Clare, 81 Sutton Crescent, Walsall.
- Gibson : Wesley Milum, 11 Northumberland Terrace, Backworth, Newcastle.
- Gissing : Alfred Charles, "Fernleigh," St. Mark's Avenue, Leeds.
- Gainsford : Hugh Edmund, 12 Finstock Road, N. Kensington, W.10.
- Haskins : Allen Daniel Aitken, 16 Simpson Road, Sparkbrook, Birmingham.
- Hughes : William Doune Price, Valuation Dept., Inland Revenue, 2 King Street, Wrexham.
- Heard : Gordon Thomas, Elbro' House, Princes Road, Backhurst Hill.
- Hodgkins : Stanley, Puleston Mill House, Wrexham.
- Harris : Aubrey Charles Henry, 25 St. George's Terr., Stoke, Devonport.
- Haigh : Albert Parsons, 16 Western Street, Barnsley.
- Harding : Henry Joseph, Yew Tree Farm, Cleve, Yalton, Somerset.
- Harris : Walter Henry Biggs, Ruiston, Taunton, Somerset.
- Hatcher : Basil Ainsworth, c/o H. Monro Cartley [A.], 10 The Thoroughfare, Ipswich.
- Holding : William Hugh, Elm Cottage, Elm Grove Lane, Old Catton, Norwich.
- Hirst : Harold, 93 Hale Road, Walton, Liverpool.
- Hodges : Alfred Walter, 10 Fortescue Road, St. Thomas, Exeter.
- Higman : Ernest Charles, "Tremar Coombe," St. Cleer, Liskeard.
- Hughes : Manolo Cyril, 112 Hankinson Road, Bournemouth.
- Hunte : Leonard Le, St. Thomas Green, Haverfordwest, Pem.
- Howitt : Leonard Cecil, 114 High Street, Neyland, Pembrokeshire.
- Harris : Walter Alan, 7 St. Mark's Avenue, London Road, Salisbury.
- Hartley : William David, "Sunnyside," Wexham, Slough, Bucks.
- Heritage : George Henry Reginald, 4 St. James's Road, Hastings.
- Hewitt : Leslie Elheizer, 78 Market Place, Gt. Bridge, Tipton, Staffs.
- Ireson : John, Junr., Glenholme House, Yaxley, Peterborough.
- Ingam, William James Norman, Robinswood, Frome Park Road, Stroud, Glos.
- Irwin : Norman Benjamin Weatherlake, 42 Portland Street, Exeter.
- Jackson : Cecil Charles, 4 Friars Walk, Exeter.
- Jones : Cyril Lloyd, St. Ives Rectory, Liskeard.
- Joyce : Nugent Tryan, 35 Stapleton Road, Upper Tooting.
- Jones : Ronald Hugh, 130 Upper Huskisson Street, Liverpool.
- Jackson : Sydney, 66 Prestbury Road, Macclesfield.
- Jayasuriya : Philip Cheshire Reid, c/o Richardson & Co., 26 King Street, St. James's, S.W.
- Jopling : Edward Lawrence, c/o 6 Grey Street, Hull.
- James : Alfred Henry, "Forest Dene," Riddell Avenue, Barnstaple.
- Jenks : Basil Noel, 83 Belle Vue Road, Shrewsbury.
- Jones : Henry Lloyd, 1 Norman Terrace, Morthyr Tydlil.
- Kelly : James Henry, 24 Lennox Road, Worthing.
- Kyffin : John Edward, 15 Monto Street, Dingle, Liverpool.
- Kirbridge : Kenneth Methuen, High Street, Wimborne, Dorset.
- King : Frederick Stanley, Maer, Newcastle, Staffs.
- Khan : Hasankhan Hayat, Anjuman-i-Islam High School, Fort. Bombay.
- Kimber : Charles Frank, Weston House, Green Hill, Worcester.
- Kerr : James, 2 Greenmount Terrace, Ballymena, Co. Antrim.
- Kenshaw : Fred, 3 Pennine Villas, Littleboro', Lancs.
- Liddle : Edwin Joseph, 15 Elmers Drive, Teddington.
- Lister : Alma, 22 Aireview Terrace, Skipton.
- Lowther : Launcelot William Stratton, 12 Old Road, Llanelly.
- Lincoln : George Ernest Barrett, 40 Nelson Road S., Gt. Yarmouth.
- Lipp : Alexander, 16 Morley Street, Langside, Glasgow.
- Luscombe : Ernest George, 41 Linden Road, Gillingham, Kent.
- Lyon : Neville Arthur, 19 New Square, Cambridge.
- Lane : Clarence, 34 Cambridge Road, Blackpool.
- Lester : Sidney Ernest, 101 Leathwaite Road, Clapham Common, S.W.11.
- Letheren : William John Cobelcick, 26 High Street, Ventnor, I. of W.
- Lindley : Cecil James William, "Eridge," Gratwicke Road, Worthing, Sussex.
- Lewis : David John, "Midland," Bridge Street, Aberystwyth.
- Marsh : Stanley, 2 Blackfriars Street, Salford, Manchester.
- Morgan : Guy Leslie, 10 Braydon Road, N.16.
- Millet : Douglas Gladstone, 9 Effra Road, Brixton Hill, S.W.
- Moorhouse : Arthur Henry, 1 Percival Street, Oldham.
- Meador : Augustus William Moxley, Burtle, Bridgewater.
- Metcalf : John Armstrong, 29 Ruthin Gardens, Cardiff.
- McGeoch : William, 28 Coleridge Walk, Golders Green, N.W.4.
- Mottershead : Harold, 72 Grosvenor Street, Leek, Staffs.
- Mossop : George Lawrence, The Bank House, Silloth, Cumberland.
- Melhuish : Leonard John, "Glenvarlock," Wentworth Avenue, Southbourne.
- Mould : Lionel Sydney, "Treherne," 32 Newburgh Road, Acton, W.
- McMullen : Leo Edward, 735 Rochdale Road, Queen's Park, Manchester.
- Metcalf : Adrian Walter, 49 St. David's Hill, Exeter.
- Miller : James Douglas Shepherd, "Strathlee," Glasgow Rd. Perth, N.B.
- Monckton : John Falkland, "St. Cleer," Liskeard Gardens, Blackheath, S.E.3.
- Morgan : Frank, 44 Marston Road, Stafford.
- Northover : Philip Richbell, "Victoria House," Tisbury, Wilts.
- Noller : James Edward, 163 London Road, Ipswich.
- Nicholls : William, 12 Selby Terrace, Maryport, Cumberland.
- Nicoll : Philip Stephen Bruce, 141 Wilderspool Road, Warrington.
- Nuttall : Harold, 1 Swanson Street, Blackpool.
- Nicholson : Ernest Corbett, Whaggs Gardens, Whickham, Co. Durham.
- Nightingale : Harold, Riversleigh, Etherley Lane, Bishop Auckland.
- Overnell : Harold, 27 Norton Road, Letchworth.
- Olley : Stanley Charles, 205 Southgate Road, Hlsington, N.1.
- Oakley : Edmund, 3 Enfield Road, Gateshead-on-Tyne.
- Punchard : Stanley Charles, 7 Second Avenue, Heaton.
- Paul : William Gordon Kitto, Embleton Vicarage, Lesbury.
- Pritchard : Lionel Arthur George, 17 Bayfield Road, Grassendale, Liverpool.
- Parry-Jones : Jack, 42 Kitchen Street, Liverpool.
- Pope : Frederick Zachariah, 79 Park Road, Chiswick, W.
- Potter : Walter Richard, 54 Myrtle Avenue, Bingley, Yorks.
- Pritchard : Harold William, School of Architecture, Liverpool University.
- Pearce : Frank Nathaniel, Wistaria House, London Road, Deal.
- Pugh : Hugh, Bardsey View, Barmouth.
- Petherbidge : Audrey Harriet, Caradoc, Paignton.
- Pike : Maurice White, 37 Tennyson Street, Leicester.
- Parry : William Closs, c/o Mr. R. Pearce [A.], Bank Chambers, Bangor Street, Carnarvon.
- Prendergast : James Francis, The Green, Castlebar, Co. Mayo.
- Pickering : James Leslie, 19 Northumberland Park, Euth, Kent.
- Plank : Victor Henry, Sarum House, The Avenue, Yeovil.
- Parker : Harold Herbert, 43 Hinton Avenue, Cambridge.
- Phillips : Harold John, 43 Kyrwicks Lane, Sparkbrook, Birmingham.
- Pickering : Horace George, 71 Wilmore Road, Perry Bar, Birmingham.
- Powell : Albert Harry, c/o T. T. Cumming, Esq., King Edward Buildings, Station Road, Birmingham.
- Quinton : Frederick John, c/o 9 Station Road, Beccles, Suffolk.
- Redding : Cyril Norman Meridan, Wormley, Broombyrne, Herts.
- Rudling : William Atkins, 30 West Street, Prittlewell, Essex.
- Rees : David Lloyd, Bron-y-gan, Llanfairfechan.
- Roberts : Douglas Hugh Poynter, 21 Grosvenor Place, Bath.
- Robson : George, "Prospect House," Union Hall Road, Leamington-on-Tyne.

Richins: Alfred Sidney, 32 Bisley Old Road, Stroud, Glou.
 Rogers: Wolsley R. T. P., Wind-sor Lodge, Warrington.
 Rees: Hector Morgan Griffiths, Alma House, Frondeg Terrace
 Llanelly.
 Rickaby: Francis Raymond, 55 West Street, South Cliff, Scarborough.
 Ryle: Wintred, 16 Gordon Square, London, W.C.
 Sherrington: William Arthur, 5 Plato Road, Brixton, S.W.2.
 Stanley: Joseph Raven Vernon, 69 Kent Road, Swindon.
 Sadler: William, 41 Thotnall Road, N.I.
 Smith: Bertram James Albert, "Frogner," Pearson Park, Hull.
 Stablesford: Charles Henry, 185 Fosse Road South, Leicester.
 Swatfield: Herbert Graham, 60 Lyndhurst Drive, Leytonstone.
 Summers, Harold George, 303 Gillett Road, Edgbaston, Birmingham.
 Siegersz, Granville Francis, Westwell, Barrowby Road, Grantham.
 Steel: George William, 48 Northcote Street, S. Shields.
 Shalleroff: William, 28 St. Michael's Terrace, Headingley.
 Smith: Gordon Arnold, 25 Bridgland Street, Bideford.
 Sandford: Herbert, Meadow House, Meadow Way, Letchworth.
 Siddall: Stanley Morton, 4 Dovedale Villas, St. Luke's, Cheltenham.
 Smith: Clive Alexander, Norton Lodge, Radford, Coventry.
 Salisbury: Thomas, 33 Malta Street, Dingle, Liverpool.
 Shooter: John William, 78 Central Drive, Shurebrook, Notts.
 Simms: Herbert George, 33 Victoria Road, London, N.W.
 Springett: Robert Edmund, 5 Clarendon Gardens, Surbiton.
 Smith: John Richard, 9 Old Square, Lincoln's Inn.
 Smith: Eric Steward, "Casa," 76 Elmhurst Road, Reading.
 Smith: Lewis James, 46 Limes Avenue, Melton Mowbray.
 Slade: Arthur, 34 Doria Road, Parson's Green, S.W.6.
 Stokes: Horace William, 119 Wills Street, Lozells, Birmingham.
 Thomas: Peter, 28 Alma Place, Heamoor, Cornwall.
 Tomlinson: Jack Dennis, Savile House, Savile Street, Hull.
 Tattersfield: Frank Alexander, 19 Matham Grove, E. Dulwich.
 Taylor: Kenneth Seaward, Ivy Court, Brookside, Chesterfield.
 Theobald: Charles Stanley, 13 Lorraine Road, Holloway.
 Tuxford: George, 121 Robin Hood's Chase, Nottingham.
 Todd: Leonard Horace, 10 Gladys Avenue, North End, Portsmouth.
 Townsend: Arthur Cecil, 7 Rawlins Street, Farnfield, Liverpool.
 Thomas: Vivian David Lloyd, 1 The Grove, Pontypool.
 Thomson: Samuel Forrest, Birkinshaw, Uddington, N.B.
 Taylor: Albert Harbidge, 5 Princes Street South, St. Thomas,
 Exeter.
 Thomas: Gordon Jones, Canton Cattle Market, Canton, Cardiff.
 Uren: Cluence, 5 Clarence Street, Penzance.
 Vine: Ronald Owen, 7 Whyrnark Avenue, Wood Green, N.
 Venables: William Gwyn Scale, "Brynteg," Bpton Ferry Road,
 Neath.
 Vernall: Richard John, 2 Nelson Villas, Brimscombe, Stroud, Glou.
 Vanstone: Lionel Frederick, 5 Hillsborough, Mannamcad, Plymouth.
 Waite: Alwyn, The Beeches, Calder Grove nr. Wakenfield.
 Wellburn: George Major, Cleabarrow Esplanade, Redcar.
 Werry: William John, 33 Hubert Road, East Ham, E.
 Williams: George, 59 Grafton Street, Hull.
 Warne: Ernest William, 40 Hatfield Street, Belfast.
 White: Leonard William Thomson, 80 Mayfield Street, Spring Bank,
 Hull.
 Wilford: Charles Edmund, 297 Belgrave Gate, Leicester.
 Wilkinson: Charles Hartley, The Holms, Earby, Colne.
 Wood: Donald, 1 Willingdon Road, Eastbourne.
 Worsfield: Alfred Felix de Parmentier, 38 Western Road, Lewes.
 Walker: Reginald Victor, 29 Berrary Road, Cardiff.
 Wen: William Grant, 28 Ancaster Drive, Anniesland, Glasgow.
 Wilkinson: Herbert Cutler, 43 Milton Street, Nelson.
 Welch: William, 18 Brunswick Road, Penrith, Cumberland.
 Ward: Philip, c/o Mr. Lattier, 28 Park Row, Nottingham.
 Wenn: James Lawrence, 191 North Sherwood Street, Nottingham.
 Whitwell: Edward John, 143 Grove Lane, Handsworth, Birmingham.
 Wood: Eric, 9 Binsted Grove, Roundhay Road, Leeds.
 Warren: Alan Edward, 395 Unthank Road, Norwich.
 Wall: Anthony William, Coppice Road, Mapperley, Nottingham.
 Wible: George, 98 Brewerton Road, Oldham.
 Williams: Ronald George Perton, c/o H. C. Portsmouth, Esq., Llanfair
 Buildings, Swansea.
 Windsor: Stanley William, 25 Halshaw Road, Kensal Rise, Willesden.
 Walker: Robert, 169 Adswold Road, West Stockport.
 Walton: Eric Bell, Gable Lodge, 57 Cosmer Road, Clapton, E.5.
 Watson: Walter, 40 Bayswater Road, Handsworth, Birmingham.
 Wild: Clifford, 535 Oldham Road, Fildsworth, Manchester.
 Ward: William Leslie, c/o T. Jenkins, Esq., Station Street, Burton-on-
 Trent.
 Webster: Sidney George, 303 Wheeler Street, Lozells, Birmingham.
 Wood: Harold Leslie, Crowhurst, 88 Leagrave Road, Luton, Beds.
 Yoxall: Thomas, 8 Church Street, Burslem, Staffs.
 Zwinger: Lionel Gordon, "Kemura," 113 Pake Lane, Wallasey,
 Cheshire.

NOTICES.

The Royal Gold Medal 1921.

A SPECIAL GENERAL MEETING will be held Monday, 28th February 1921, at 8 p.m., for the following purpose:—

To elect the Royal Gold Medallist for the current year. The Chairman to move "That subject to His Majesty's gracious sanction the Royal Gold Medal for the promotion of Architecture be presented this year to Sir Edwin Lutyens, R.A. [F.], in recognition of the merit of his work as an architect."

Business Meeting, 28th February.

The NINTH GENERAL MEETING (BUSINESS) of the Session 1920-21 will be held Monday, 28th February, immediately following the above Special Meeting, for the following purposes:—

To read the Minutes of the Meeting held 14th February; formally to admit members attending for the first time.

To proceed with the election of the candidates for membership, whose names were published in the JOURNAL for 8th January and 5th February, viz. for Hon. Corresponding Membership, 1; for Hon. Associateship, 1; for Fellowship, 1; for Associateship, 53.

CHAIRMAN to move that the following clause be added to the Regulations for Architectural Competitions—viz.:

"In the case of a Competition for a Housing Scheme the Conditions shall be in accordance with the Model Conditions for Housing Competitions approved and issued by the Royal Institute of British Architects."

CHAIRMAN to move the adoption of the following proposals involving amendment of the Charter and Bye-laws:

(a) *Honorary Associateship*.—Membership not to exceed sixty; entrance fee and subscription to be abolished; privilege of voting in the election of the Council and Standing Committees to be abolished.

(b) *Retired Fellowship*.—Qualifying period of membership to be reduced to 25 years.

(c) *Subscribers*.—A new class to be created, under the name of "Subscribers," who will be non-professional, have no privileges of membership, and no power to use any affix indicating membership of the R.I.B.A. Subscription to be one guinea per annum. They will be entitled to use the Library, to attend Ordinary General Meetings, and to receive a copy of the Annual Report.

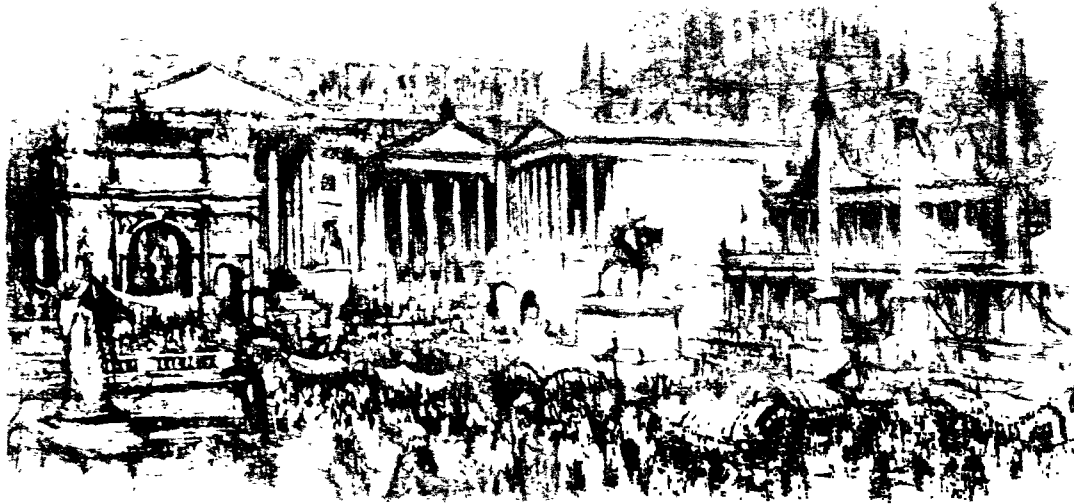
Extra Meetings, 1st and 2nd March, at 8.

Tuesday, 1st March (Meeting arranged jointly with the Society for the Promotion of Hellenic Studies).—Further Evidence for Dynamic Symmetry in Ancient Architecture: Paper by Mr. Jay Hambidge, with Lantern Illustrations.

Wednesday, 2nd March.—Mesopotamia: Architectural Impressions of a Recent Tour: Paper by Mr. Edward Warren, F.S.A. [F.], with Lantern Illustrations. The lecture will also be illustrated by a large number of water-colour drawings by Mr. Lionel Muirhead, who will himself explain them.

A.R.I.B.A. (29), at present in charge of large drawing office in India, desires change to London, owing to climate. Could be free shortly provided reasonable salary and prospects assured. Previous experience and training in London. Full particulars and references. Apply to Box 421, care of Secretary R.I.B.A., or "Architect," care of Cox & Co., Bombay.

ARCHITECT requires office accommodation in Central Area or West End London, or would share suite of rooms. Apply Box 1421, Secretary R.I.B.A., 9, Conduit Street, London, W.



By courtesy of Technical Journals Ltd

ROMANS IN THE FORUM. From an Etching by Wm Walcott

IMPERIAL BUILDING: WHAT WE MAY LEARN FROM ROME.

By W. G. NEWTON, M.A.Oxon., M.C. [A.].

Public Lecture at the Victoria University, Manchester, 27th January, 1921.

THIS evening we are to take a long voyage into the past, and reconstruct in our imagination a great system of civilisation two thousand years old. It is no easy task, and I shall want your very active sympathy and co-operation, for we have to make the old ruins live, to animate and recall to life a shattered and dusty skeleton.*

We carry away from our schooldays a mis-leading and parochial idea of Rome. We read about patricians and plebeians, Marius and Sulla, the Gracchi and the Punic Wars, but hardly a word about the Empire. The historians of the nineteenth century were interested in party government and the Republican idea. They drew a veil over the Empire, as though it were something indecent. Moreover, the great writers whom we studied, Virgil and Livy, Cicero and Horace, came at the end of the Republican period, and their eyes are on the past. Troy town is almost more to them than Rome. Julius Cæsar, for them and for us, was the last of the Romans.

But he is rather the first. A glamour is cast on the Republican ages by the great names of Latin literature. But the small triumphs and homely virtues which they celebrate are a play in a country village. Now a vaster stage is set. Beginning with the generation when Christ was born, for three centuries and more Rome is the centre of a great system of civilisation stretching from the Cheviots to Egypt, from the Straits of Gibraltar to the Garden of Eden. For three centuries and more this quarter of the world, with the Mediterranean lying like a lake in the middle, with its roads forming a huge nervous system centering on the City of Rome—all these peoples who now are England and France and Spain, the Rhine Provinces, the Balkans, the Middle East, Egypt, and the long north coast of Africa, lay in a profound peace. There were short internal wars over the imperial succession, and a certain amount

* The lecture was illustrated by a number of slides reproducing etchings by William Walcott of the buildings as they would have looked amid the life and movement of Imperial Rome.

of frontier disturbance, but, speaking broadly, there has never been so long a period when so many different peoples have lived an ordered and tranquil life. It is as if there had been no wars in Europe and Asia since the Spanish Armada.

Everywhere cities grew and flourished, built on similar plans, governed on similar lines. It has been calculated that there were more than two thousand of them. The couriers on the great roads could travel one hundred miles a day. A bulletin of news was issued daily, and read in public throughout the Empire. Everywhere the same types of building recur; the streets of Palmyra recall those of Milan: the traveller from Rome would find great bathing establishments in Paris or in Gloucestershire: the stretching aqueducts of the Campagna are echoed in Spain or North Africa. The known world was a great family.

The army, too, bore a great part in this unification. The Roman Empire was in its essence a military organism. And this does not mean so much that the supreme power came more and more to be the gift of the legions, true as that is, as that the whole civil administration, the whole system of meeting the demands of the world, whether for corn or for statuary, for clothes or for building, became gradually a great organisation run on similar lines to the organisation of the army. The legion are recruited locally, Great military camps grow into prosperous towns. The Roman soldier under the Empire is not a specialist, he is a settler. And he is ready to turn his hand to anything, to building an amphitheatre, working a silver mine, or adding temples, bridges, and aqueducts to the adornment of Egypt. Let me read you Kipling's description of the young subaltern's first sight of the Great Wall, built as you know across the north of England to keep out the Picts and marauding Scandinavians. The subaltern is marching over the Yorkshire moors:—

Of course, the farther north you go, the emptier are the roads. At last you fetch clear of the forests and climb bare hills, where wolves howl in the ruins . . . The houses change from gardened villas to shut forts with watch-towers of grey stone. In the naked hills beyond the naked houses, where the shadows of the clouds play like cavalry charging, you see puffs of black smoke from the mines. The hard road goes on and on—and the wind sings through your helmet plume—past altars to Legions and Generals forgotten, and broken statues of God and Heroes, and thousands of graves where the mountain foxes and hares peep at you. Just when you think you are at the world's end, you see a smoke from East to West as far as the eye can turn, and then, under it, also as far as the eye can stretch, houses and temples, shops and theatres, barracks and granaries, trickling along like dice behind—always behind—one long, low, rising and falling line of towers. And that is the Wall! . . . And from end to end is the town, eighty miles long. Think of it! One roaring, rioting, cock-fighting, wolf-baiting, horse-racing town from Ituna on the west to the cold eastern beach. On one side heather, woods and ruins, where the Picts hide, and on the other a vast town—long like a snake and wicked like a snake. Yes, a snake basking beside a warm wall!

And at big historical crises the legions, imbued as they are with the ideas and manners of their province, of Syria, of Britain, of the Rhine valley, are run like a shuttle through the fabric of the Empire weaving together in one varied whole the thought of its most distant parts. At the centre is the Emperor and his governmental system. I don't want to fatigue you with a lot of names, but I think it would be useful to glance for a moment at the chief imperial periods from Augustus to Constantine. There are four:—

(1) The Julian Emperors, from Augustus (who came to the throne about the date the Virgin Mary was born) to Nero (who probably put St. Paul to death). During this period of ninety years Rome was largely rebuilt. Augustus left marble where he found brick. Nero took more advantage of the great fire of Rome than we took of the Great Fire of London, and rebuilt Rome with wider streets and more solid houses.

(2) The Flavian Emperors—Vespasian and his two sons, Titus and Domitian. They came from Syria, where Vespasian was in command, and with them came a wave of Orientalism affecting religion, manners, and architecture. To this period we owe the Colosseum and the Baths of Titus, much rebuilding and extension of Rome, and possibly the dome.

(3) Trajan, Hadrian, and the Antonines, ending with Marcus Aurelius (about 100-200 A.D.). A time of profound peace. City vied with city throughout the Empire in building colonnaded streets and aqueducts, temples and amphitheatres, forums and baths. Trajan is praised by a writer of the time for the magnificence of his public works; Hadrian, wherever he went tramping at the head of his legions

over the world, took with him a troop of architects, to add something to the splendour or convenience of the cities through which he passed. It is written of him: "In almost every city he erected some building." And we owe to his day the dome of the Pantheon, perhaps the most impressive and most Roman building in the world. This second century of our era was, in the opinion of the historian Gibbon, the happiest and most prosperous in the history of the world.

(4) By a singular irony of history, it is the son of Marcus Aurelius, the philosopher-Emperor, who breaks the charm, and is the first of a long line of rulers under whom, in the third century, discipline and administration are relaxed. An Asiatic priest, a Thracian peasant, an Arab, and a squireen occupy in turn the throne of the Caesars: and the whole great centralised system begins to show signs of failure under the strain of internal disorder and the first shocks of barbarian inroad. There is no great builder, except Caracalla, till Diocletian at the end of the century: the son of Dalmatian slaves, he founded a new system of Government, dividing the Empire into four parts, each with its prince in command. In his reign were built baths and a great palace on the east shore of the Adriatic, where he retired, after reigning twenty years, to grow cabbages and study philosophy. He had paved the way for Constantine, who about thirty years later emphasised the final division of the Roman Empire by founding Constantinople and leaving Rome a provincial city, nursing a memory of greatness.

So much for the Emperors. What of the people who formed the mass of the system?

There were four classes—slaves, freedmen, and two classes of the free. All ancient civilisation rests on a basis of slavery. In the Roman Empire, which touched at every frontier less civilised and, at first, weaker peoples, there was no lack of slave labour. It was no uncommon thing for a great Roman to have four or five hundred slaves in his immediate household. They were often treated with great kindness, and would gradually hoard enough money to buy their freedom. Their employment was largely domestic, and we have no reason to think that they had much to do with building.

The freedmen were the most enterprising and wealthy class in the community. They were not ashamed, as the free-born citizen was, to engage in trade and speculation. They were not expected to spend on the same lavish scale as the free-born millionaire. They became permanent secretaries at the heads of the various branches of the imperial civil service. Yet, important and wealthy as they were, the barriers of class distinction were such that they remained a despised class, looked down upon by the sorriest garlic-eating loafer, who was free-born.

The free-born were sharply divided into patricians and plebeians. The former distinction, at first a question of lineage, became more and more confined to those who had held office (local mayors and the like) and their descendants. They had all the honours and a great deal of the wealth. But it was a social obligation, understood and accepted, that this wealth should be expended to glorify their own town, especially in building. The least important councillor or patron would signalise his election by building a temple or a bath-house. Countless inscriptions have been found all over the Empire recording gifts and bequests, the greatest part of them on objects of public utility—baths, theatres, aqueducts, new roads, and markets. "There was in those days," writes Professor Dill, "an immense civic ardour, an almost passionate rivalry, to make the mother city a more pleasant and more splendid home." And again: "Much has been lost in the wreck of time, yet the remains of such inscriptions are so numerous that it is almost impossible to give an adequate idea of their profusion. There is an almost monotonous sameness in the stiff, conventional record of this vast mass of lavish generosity. It all seems a spontaneous growth of the social system. . . ."

The plebeians had the material advantage of all this generosity and of cheap corn. On the other hand, there was little opportunity for ambition, little chance of rising, except for a soldier, and the indolence and lack of careers bred a class of loungers. They were subject to certain obligations, such as conscription for labour purposes when required.

This was the background of the Roman world. Who did the building work?

In the first place there were architects. We hear of them in the time of Augustus (the writer Vitruvius was one), in the time of Trajan, and Hadrian (who took numbers of architects with him on his

marches), and Constantine (who gave orders for founding schools of architecture throughout the Empire). Their functions, as we learn from Vitruvius, were much those of the present day. They designed the buildings, drawing plans and elevations and perspectives. They also did levelling and surveying, and looked after fortifications and artillery work, like the architects of the Italian Renaissance.

In the actual construction, in the case of large public buildings, when it was not the work of the legions, we find a plain division into two classes, as is apparent both from documents and a study of remains: (1) The large mass of so-called unskilled labour, available from the labour conscription, (2) Skilled tradesmen.

We all know that building in all its branches is a matter demanding very skilled co-operation. Yet we shall see when we get on to an analysis of Roman building methods that the Romans continued to make the largest possible use of unskilled labour. To supervise this, and to do the more skilled work, such as the brick arches which reinforced the concrete vaults, and for masonry, carpentry, joinery, and decorative work, there was need of skilled men bred to the trades. To meet this need there grew up an interesting guild system, where men of a trade were combined together as a "corporation," in which membership was hereditary. The members were bound to give their labour on public buildings. In return the corporation was endowed with land, on the revenues of which the members lived.

In the case of private works, one member of a corporation might act as a contractor. He would tender for a fixed sum, and make use of his fellow-members, and perhaps hire slaves for less skilled work.

So, then, you have the great body of patrons, anxious to build, from the Emperor down to the newly-elected mayor of some small provincial town in Africa or Gaul. You have the almost universal peace. You have materials, and where necessary good roads for transport. You have the skilled guilds, bound to give their labour in public work, and ready to sell it in private. You have the general mass of the people, compelled to lend a hand when called upon—or, elsewhere, the army, or slaves who might be hired. Much of the machinery of administration and of industry (which takes up the energies of our own days), such as State departments, police, wood-cutting, road-making and mending, and mines, was run by slaves or freedmen. There was no obstacle to building, and every inducement.

And so this great system of the past life of men has, like some perished mammoth, left everywhere its bones, which we may see and handle and reconstruct. A vast deal has vanished in the earthquakes and wars and spoliation of one thousand seven hundred years. But so solidly did they build, and so universally, that we can still study over most of Europe, and much of Asia and Africa, what manner of men they were and what they made of life. When I look at the great remains of the Roman Empire I am reminded of Watts's picture of the *Minotaur*. A great hand seems to be laid, almost unconscious of its weight, on the peoples. The individual sinks out of sight. The remains are the remains of cities that built, and armies. Not here is the simple freshness of the Greek, chiselling his marble in the sunshine, or the exuberance of the mediæval builder, as he poised buttress against vault and laughed to see it firm. As we stand by a Roman ruin we seem to hear a sound of many voices, the

Smoke and wealth and roar of Rome.

Of course, when we think of Roman architecture as a series of colossal monuments we must correct this by remembering that the large things have survived, while the small things—country houses and farms and shops and wayside temples—have perished. Yet theirs was a heavy hand. We have only to look at the aqueducts straying across the Campagna or spanning a river-valley, as the Pont du Gard in Southern France with a height of 160 feet and a length of 880, to realise with what a ruthless disregard of labour and materials the Roman achieved what we do with a pipe in the ground. Or compare the main building of the Baths of Caracalla with the plan of St. Paul's Cathedral.

We hear a great deal about the baths of the Romans. It will be interesting to pause for a moment and consider what they were used for and how they were built.

The Roman Empire was an empire of towns, and the great centres of this town life—open alike to the rich and poor, the provincial senator and the working mason—were the forums, with their colonnaded walks and shops, their crowded temples and courts of justice, and—more intimately—the baths. I

think the great impulse to their use and development must have come, with the vault and dome, from the East. The Egyptian of Herodotus, the Mahomedan, and Indian of to-day are great ceremonial washers. Our mild survival of the Roman establishment is called a Turkish bath to this day. The peoples of the Roman Empire made more than a ceremony of it: they made it a delight. And not only did they bathe. The baths were a resort for sports and for literary discussions, and, above all, for the lounging and gossip which is the breath of life to Mediterranean man. Your Roman citizen is an inveterate corner-boy.

Let us gossip for a few minutes in the Baths of Caracalla.

From the noise and hurry of the streets we pass into a great garden enclosure, 400 yards each way. Within this stands the main building of the baths, which we enter through a door which leads into a colonnaded courtyard with a great semi-circular open apse on one side. Here are crowds of young fellows skipping or running or practising boxing or playing at ball. In the shadow of the colonnade the latest poet is reciting his verses to a crowd politely interested. From a neighbouring hall comes the sound of applause as a lecture is ended. We pass on through a vaulted lobby, as large as the room we are now in, into the great enclosure where bathers are splashing in the cold pool under the sky, and thence into the vaulted hall of the Tepidarium, with its vistas every way into the sunshine—a hall as high as the nave of St. Paul's and nearly twice its width.

How is the great vault built? Lavish and ruthless their conception may be, but they are straitened by two necessary economies—skilled labour and timber. For heavy work they can impress the forced labour of multitudes: for their skilled supervision they must go to the limited corporations. And the Roman country-side, where the building methods first hardened into a tradition, is treeless. There is no timber to spare for vast systems of centering, which have to be struck when the work is finished.

To take the second problem first. They hit on a method of building which, with the scantiest possible use of timber centering, enabled them to build a permanent centering of brick, which was never struck and remained for all time a part of the vault.* A few principal trusses, and planks between, would enable them to build their light network of brick. And the centering would be shifted along the vault as required. Sometimes the network was not quite joined up. As a further economy, sometimes quite discontinuous double arches were built. Here there was evidently a tendency for the filling to drop out on the surface. So the next time they made a square or octagonal box and fixed it on the planking—whence comes the coffered vault. Another cheap and simple way of making permanent centering was to use the 2 feet-square flat bricks on edge, to form a sort of plated centering, upon which the mass of cement and stones was shovelled to complete the construction.

And now we come to the economy in skilled labour. The Romans were as well aware as we are that concrete mixing and laying is skilled work. So they didn't use concrete, but a system of alternate layers of cement and broken stone or pebbles, each layer thrown on with a shovel. The layering is clearly visible in remains of Roman work when examined. This was work which the unskilled pressed labourers could quickly learn and under supervision adequately perform.

So were raised the great vaults and domes of the Romans. We see no development and daring experiments with a great structural idea, such as the mediæval mason gives us in his poised vaults, or the Byzantine Greek in the shell-like dome of the Sta. Sophia in Constantinople. The vaults of the third century are no advance on those of the first. If there is any change, the workmanship is less good. But the Roman had done what he wanted. He had built a great barrel, bigger than any one had built before him. And he had done this with an economy of skilled labour and of timber which was necessary to him. To economise in the mass of men and material he saw no need. So he was satisfied with what he had done: and being of an orderly and methodical nature, he stereotypes it. His successors would have the same problems to meet and the same economies to make. So it is filed for reference.

That is one of the great contributions of the Roman Empire to architecture—the great-hearted

* See Choisy: *L'Art de Bâtir chez les Romains*.

confident covering-in of spaces 80 or 100 feet wide (the nave of St. Paul's is about 45) in a manner of building that has defied wars and fires, and earthquakes, and only yielded to the quarryings and carryings away of a score of generations of men (slowly destructive, like white ants). Another of the great contributions was a power of spacious, orderly planning. They were not the first who had planned towns. Babylon, we learn, was planned on rectangular lines: some of the Greek towns were laid out on a system of straight right-angled streets: no less are Chinese colonies which have been discovered in Central Asia. But the Roman had a larger field and larger ideas. His great colonnaded streets running from town-gate to town-gate, and crossing in the centre of the town (a direct development of the plan of the legions' fortified camp, as they went about the world on their business of civilisation), are found from the north of England to the borders of Mesopotamia. His whole Empire was a great plan growing out of his system of roads, which ran like straight corridors about it. The three outstanding qualities of the Roman idea of planning are straightforwardness, vista, and balance. He was by nature straightforward in idea. He would go, as his roads show, direct from one point to another. But where the body could go the eye could go, too: and out of this straightforwardness grew a love of the stretching vista, where the eye was carried through great openings and across sunshine and shadow to some monument or group where it would be content to rest.

This is shown in the plans of the great baths, in the forums of Rome, where Emperor after Emperor added and developed, cutting out the hillside to set court beyond court (where the smallest is the size of a football field), and no less in the streets which ran past all the varied life and buildings of a town to where, at the end, the distant country showed through a triumphal arch.

If we were all of us one hundred years older, I should be bound to speak of the Roman Orders—that system of proportioned columns and ornament which the Italians of the Renaissance valued the highest and studied the most earnestly of all that Roman civilisation has left to us. But I will not touch on them to-night. In the first place the study is rather technical. In the second place the system is not Roman at all. The system of proportions was taken over from the Greeks, and for convenience stereotyped by the Romans for general use.

There are many other subjects it would be interesting to discuss: how, for instance, the mediæval church, with its plan and the ceremonies which governed its plan, grew out of the temples built for the worship of Isis and of Mithra: how the town of the Roman Empire—the growth as it were of a day—differs from the mediæval town which gradually accumulated round footpaths and fords and bridges: how the Roman varied his plans and his materials (but never the dominating ideas of straightforwardness, mass, and simplicity) in Gloucestershire, the Balkans, Egypt. But perhaps enough has been said to give you a general idea of what the Romans built, and how. Before, however, we go on to consider what we can learn from Roman building, I should like to read you a short extract from Pliny's description of a country house built about the date of the Book of Revelations. I have talked about the Romans in the mass, but we shall see from this that he had an individual point of view and an intimate affection for his home, no less than Francis Bacon or ourselves:—

"My dear Gallus," he writes, "You wonder why my Laurentine home, or, if you prefer it, my 'Laurens,' delights me so much. You will wonder no longer when you learn the charm of the house, the convenience of the position, the expanse of seaside. . . .

"My place is designed for use—not expensive upkeep. In front an atrium, modest but not mean: then a colonnade in a D-shape, enclosing a jolly little garden-court. This is a splendid place in bad weather, sheltered by window-panes and even more by projecting eaves. Central with this is a delightful inner court, then a pleasant enough dining-room, jutting on to the shore—yes, and washed by the spray of the highest waves when there's an African blowing. On every side are doors, or windows as big, so that in front and sides it has a view of three seas, you may say: and at the back—inner court, colonnade, garden-court, colonnade again, atrium, the woods and the far hills. A little set back on the left is a roomy bedroom, then a smaller one, with one window to let in the dawn, another to hold the sunset: with a view, too, of the sea below—further off, certainly, but safer. The corner made by this bedroom and the projection of the dining-room is a sunshine bath. This is the winter-garden—yes, and the playground of the household. There is no whisper of wind here, except those that bring cloudy weather, and they must banish the sunshine before they send us indoors. . . .

"Then you come to the cold bath—a spacious apartment with two plunge baths curving out in opposite walls—quite large enough, if you mean to swim in the sea just round the corner. Adjacent is the anointing room, the heating-chamber, and the hot room, and then two chambers rather neat than magnificent. And next door is a wonderful warm bath, where

you can swim with a view of the sea: and near by a racquet court, which gets the warmest of the afternoon sun. Here is a tower, with two pavilions below and as many in it, and, besides, a supper room with a wide prospect of sea and stretching shore and delightful villas. . . .

"There is another tower, too. . . . It looks on the garden and the terrace which runs round it. The terrace is bordered with box—or rose-mary where the box won't thrive. For where the box is sheltered by the house it does very well. But in the open, and exposed to the wind and brine (far away though it is), it withers. The terrace is bordered on the inner side by a delicate and shady vine-thicket, a soft carpet even for bare feet. The mulberry and many fig trees adorn the garden. The country-side, indeed, is peculiarly rich in them, though no other tree will grow. This aspect is as good as the sea-side, and there's a breakfast-room here, away from the sea and enclosed at the back by two verandas, whose windows look out on the vestibule of the house and another garden, wild and luxuriant. . . .

"At the head of the alley, and in turn of the covered walk, lies the garden-house, my very heart's delight. It was my own idea. In it is a sun-chamber, looking one way on the alley, and one on the sea, both ways on the sun. The bedroom door commands the covered walk, its windows the sea. In the opposite wall is a jolly recess, which can be made part of the bedroom or cut off from it by glass doors and curtains. It holds a bed and two chairs: sea at feet, villas at back, woods at head. Such are the views, and a window for each or for all at once. Adjoining is a night chamber, for sleeping, cut off from any noise of servants' talking or murmur of the sea, from the rushing of the storm or the glare of the lightning—yes, even from the light of day with the windows shut. The reason it is so remote and secluded a retreat is that there is an intervening passage between the walls of the room and of the garden, and the empty space absorbs every sound. Attached to the room is a little hypocaust, which has a narrow opening to let in the heat, or not, as you will. Then comes a bedroom with an ante-chamber stretching into the sunlight, which strikes it at sunrise and lingers on, slantwise it is true, beyond mid-day. When I betake myself to this garden-house I feel I am cut off even from my own villa, and above all is it delightful at the Saturnalia, when the rest of the house echoes with the season's jollity and holiday shouts, for I feel that I am not spoiling my fellows' sports, nor they my studies.

"The seaside is bright with a pleasing variety of villas—now a terrace, now single houses—which have the appearance of a multitude of towns, whether from the sea or the shore. Sometimes the sea is calm and smiling for quite a spell, oftener grim with hurrying, fighting waves. Rare fish there certainly are not, but soles and excellent prawns in abundance: while my land supplies come from my own estate, and milk especially. The herds in the pastures see to that, as they roam by 'fountain, shade and rill.'

"Well, now, do you think I am justified in living here and loving my country home? And you must be a man about town to the finger-tips if you don't envy me it. Yes, do envy it! So that, richly dowered as it is, my little place may have the added commendation (and what could be greater?) of entertaining you."

In a few minutes, ladies and gentlemen, we shall be turning our backs on this vision, slight as it is, of the old Roman Empire, with its wealth of ordered cities, sunny colonnaded streets and vaulted baths, and all its intense civic ardour, to go out on to our own dreary pavements, mid a crowd of our own indifferent fellow-citizens: we shall hurry past the commercial buildings of the nineteenth century, and see the long grey vista crowned by the local gas-works. We must, I think, feel in this contrast of present and past that we have lost something of the fine instinct for order, something of the large simplicity of the Romans, which we do right to regret. With electricity for power and light, with steam and gas and steel and all the resources of modern civilisation, what would not the Romans, with their enthusiasm for building and their developed sense of the town as a unity, have made of our great cities?

We are the heirs of the hurried business instincts of the nineteenth century. We cannot right it all in a day. But we can at least be impatient of what is mean, and eager to welcome what is good.

The architect, like the dramatist, is to some extent dependent on the minds of others. The building, as it gradually shapes itself in his brain, is half fashioned by the invisible hands of those who will use it. In his imagination, they go about their business in it, and create his plan. They glance at it in passing, and he sees it in perspective. Through their eyes he views it from far off, and so his elevation develops. The architect is rather the mother than the father. The building has many fathers. And you all must help this expression of ourselves. We shall not do it in Roman ways. They are clearly an expression of their own time, of that ordered uniformity which at last became an oppressive centralisation under which the individual withered in a growing twilight of the mind. We are of very different fibre. Our whole instinct is individual. Our great contributions to the world are seamanship, the novel, and exploration. The Romans could not have produced a Drake, a Dickens, or a Stanley. The Romans marched in columns of fours into the unknown places of the world. Yet we have carried our natural instincts a little far. We have felt it was no concern of ours what sort of house our neighbour built, or what sort of street our council planned, so long as it meant no addition to the rates. We have lived by ourselves too long.

The war brought us closer together for a space. We felt the drive of a common impulse. The man

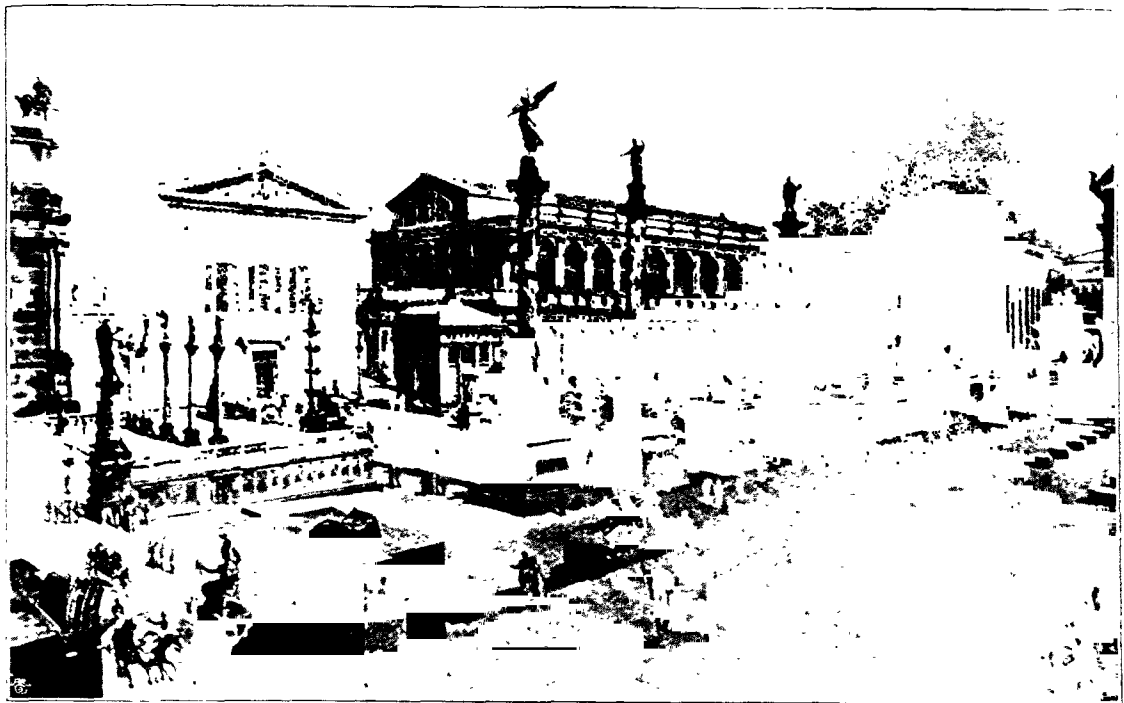
who had grown accustomed to his own front-door with its key and knocker has shared a water-proof sheet with his neighbour under the stars. But we are quickly freezing up again.

Yet I think it is not too late if we will all help. And in this matter of the pleasantness of buildings, remember that the architect needs the co-operation of his fellow-citizens. In the mass he can only express what they want expressed. Architecture is, and cannot but be, the characteristic seal of its age—whether it be the blowsy good-nature of the mid-Georgian or the self-conscious mysticism of the mid-Victorian. The most original of us will in the end be bent to your will. What is your will?

I would pray you at least to think it worth while to be interested. Be all agog to see what is being done and where we are going. Be violent about mean streets and dingy railway stations, about ignoble building and planning as expressing ignoble thought, a contempt for fellow-men. As you see a scaffolding going up, crowd round and ask, what are they doing to express in some way what I think and what a city should be—what I want my children to live with? Remember the old Greek saying that mean buildings make a mean people.

The architect is not the man who meets a merely material need for so many cubic feet of space. Architecture, like every art, is the materialised expression of emotion through the intellect, with joy. Don't say this doesn't matter. What you want is a house to live in, a shop to buy in, a street to walk along. Man was not born simply to eat, and propagate, and die. These things are necessary, indeed, but are the mere ground-work of life. What you want is a house where you and yours can live with delight, a street where it is a spiritual refreshment to walk.

All these things can come but slowly—and not at all, if you don't desire and insist on them. The architect will depend on your enlightened ardour. You will depend on his trained direction. Architects were never more alive to the needs of the day. A thousand students are now being trained in three or five-year courses in schools of architecture all about the country to give you this. But the artist without the understanding and good will of his fellows is naught. Remember it is a play. The players have their part as well as the writer. The stage is set. Will you hang in the wings, or pass by indifferent in the street?



THE BASILICA AEMILIA (as restored by Signor Gatteschi).

A TALK ABOUT CONTEMPORARY BRITISH ARCHITECTURE AND ITS IMMEDIATE ANCESTRY.

By H. S. GOODHART-RENDEL.

Read before the Manchester Society of Architects, 10th November 1920.

BEFORE I begin, may I remind you in self-defence that I have undertaken to deliver a talk, and not a lecture, and that the subject of the talk is nothing more definite than the contemporary architecture of our country, with some little reference to its immediate ancestry, when ascertainable. I think that this subject is wide enough to justify a very discursive treatment of it, and I propose least of all things to be either thorough or systematic in my remarks. Rather will it be my aim to present a few ideas which may be, and I hope will be, provocative of thought and discussion.

These ideas I have sorted roughly into three heaps, according as to whether they chiefly concern Monumental, Ecclesiastical or Domestic Architecture.

I.—MONUMENTAL ARCHITECTURE.

By monumental architecture - which I shall take first—I do not only mean the architecture of buildings which the French would call monuments. I mean that certainly, and a great deal else as well. Any secular building which aims at any degree of dignity, however small, rather than at mere picturesqueness, I shall treat as being a work of monumental architecture, and you will see therefore that my domestic class will limit itself to buildings little and homely, since the larger kind of houses are apt to qualify as monumental. Street and business architecture will fall within the monumental class almost entirely.

Now, in monumental architecture, according to this loose and convenient definition, a great deal can be learnt by looking back a few decades of years, and I propose to survey for a moment the state of things when the late Alfred Waterhouse made his *début* in monumental building in 1859. The occasion, as you know, was his winning the competition for the Assize Courts in this city. I do not suppose that it is possible to over-rate the importance of this event in the subsequent history of nineteenth century architecture. I am not proposing to defend the style of the façades, although if anybody made them the excuse to attack the Gothic Revival I should probably be tempted to do so. The Gothic Revival was a very important movement in the history of English architecture, and the sooner we lose our present habit of belittling it the better. That is, however, by the way. My object in speaking now of the Assize Courts building is to call attention to the immediate recognition which it obtained from a public for the most part prejudiced against its style, a recognition due to the merits of its arrangement and to its general convenience. The kind of thing to which people of the time had become accustomed in public buildings was a sort of suffering to be

classically beautiful, running largely to columns and balustrades, generally in front of windows. Waterhouse gave them a building in which the architecture, at any rate, never got in anybody's way; and this was rightly felt to be an immense advance in the art. What Benjamin Woodward had failed to do in the Oxford Museum four years before, what Lord Palmerston had just forbidden Scott to attempt in the Foreign Office, young Waterhouse achieved with his first effort. He reconciled the forms of mediæval architecture with the needs of his day, whereas the professors of classical architecture had failed to effect with their style any such reconciliation. The best that these latter gentlemen had done was to establish a sort of armed truce between use and beauty. In illustration of this, let me quote from an able eulogy of Edward Walters the following words: "Most of his warehouses, for the sake of light, face north, and he was ingenious in providing sufficient projections to counteract the absence of strong light and shade."

Ingenuity in preventing a warehouse facing north from looking like a warehouse facing north could not always be expected from every architect, and the public was therefore naturally disposed to welcome a new style in which it might not be needed. Gothic of some sort, therefore, became the accepted idiom in which the more progressive architectural ideas of the time were expressed, and a host of buildings—some of great merit—such as the Northampton and Congleton Town Halls, both by E. W. Godwin, the Law Courts in London, by G. E. Street, the Midland Hotel and Station, also in London, by Sir Gilbert Scott; and Cardiff Castle, by W. Burges, and some of less excellence which I will not particularise, resulted from Waterhouse's experiments. Of course, we can now see that in order to be sensible it is not necessary to be nearly as Gothic as all that, just as we ought to realise that in order to be classical it is not necessary to be nearly as pompous as a great many people would have us be.

This, however, is a digression. To return to Waterhouse and his confrères. I think the Town Hall here is justly accredited his masterpiece. You may not like the style—personally, I prefer it to a great deal that we are supposed to admire nowadays; but you must admit that it is an extraordinarily capable design throughout, moulded in its smallest detail by its programme. I do not pick out these two buildings because I have the honour of speaking at Manchester. Believe me, I should say the same anywhere, citing them as the best examples of the best work that was done at that date. Unfortunately, there was only one Waterhouse, and, still more unfortunately, much even

of *his* work in other places has the merit of the plans and elevations, invariably great, obscured a little by a perfunctory and graceless overlay of architectural detail. At least, so it appears to us now. This detail was all that lesser men could copy, and copy it they did with terrible assiduity. In fact, the seventies and the eighties of the last century were in the main bad times for monumental architecture in England, when dignified planning seems hardly to have been understood at all. They were times of quickly changing fashions, during which men seemed to look upon architecture merely as the art of applying (alleged) ornament to structures which aimed at nothing nobler than sufficient utility and the utmost economy of space.

I will try and bridge the gap between that time and now, by enumerating a few of the buildings which made reputations in their own day, some of the reputations surviving, with varying degrees of justification. The Free Library at Liverpool, designed by Thomas Allom, is regarded by some as an example of the survival of our eighteenth century tradition, a notion which a knowledge of Allom's antecedents does not encourage. It is probably more admired now than it was at the time of its building, but I cannot think of it as anything other than an isolated phenomenon, and not a particularly interesting one at that. The Town Hall at Halifax is almost contemporary with the Assize Courts here, and foreshadows the developments that might have been expected in the style of its architect, Sir Charles Barry, had he not died before the building was completed. The plan of this building is good, as were all the plans by Barry. The architecture is difficult for us to swallow, and it is not true to say (by the way) that the more exuberant features of it are due to Sir Charles's son, Edward M. Barry, although this is commonly stated.

Sir Gilbert Scott, whose costly but insipid buildings made for him perhaps the best known name among English architects of his time, did not, as is commonly supposed, confine his energies to church building. On the contrary he particularly prided himself on a style of secular Gothic which he claimed to have invented, a style which occasionally arose to the grandeur of such works as the Midland Railway Hotel in London, but which more often remained on a dead level of elegant expensiveness. The Glasgow University, the Infirmary at Leeds, the Town Hall at Preston, Beckett's Bank at Leeds, these are typical examples of his work in this manner.

One of the first buildings in which appeared the Queen Anne Revival to which Gothic began to give place about the year 1870, is the Leicester Town Hall. The building has more historic than positive interest, but it is pleasing to the eye and the precursor of an important change in architectural costume. The nineties gave us a good plan in that of the Imperial Institute, though here the architect was hampered by nobody being sure at the time, or indeed ever afterwards, what the building was for. The

Sheffield Town Hall, by the late Mr. Mountford, comes at about the same time, and appears to me chaotic inside and out.

Such plans as that of the Imperial Institute, and, better still, that of Sir Aston Webb's and Mr. Ingress Bell's excellent Law Courts at Birmingham, were exceptional. Most plans of the time show an almost incredible confusion and lack of dignity, as reference to any volume of the contemporary building papers will show. The elevations accompanying them generally display what is euphemistically called a free treatment of the Renaissance, in which the freedom is more apparent than the Renaissance. At Leicester as I have said, the vogue was Queen Anne; in the very pretty Imperial Institute the symptoms are decidedly Spanish; at Sheffield they defy diagnosis.

The same sort of thing set in at Gloydon, at Oxford, and in many other places with varying degrees of virulence. After a time the small detailed style which the custom of use of terra-cotta had imposed gave way to a broader manner, with stone as the commonest material. The late J. M. Brydon, when adding to Woods' remarkable Town Hall at Bath, approximated his style to that of the older master, and the result was so much admired that a so-called Georgian type of design soon became general.

Now I am coming from what I have heard tell of to what I can actually remember, the last twenty years. Twenty years ago, let me remind you, the Neo-Grec movement was not. I rather fancy that we were still freely treating the poor old Renaissance, though in a way which was thought extremely novel and artistic. An excellent Soane-Medallion design by Mr. Fulton for an establishment of public baths was regarded not only as great architecture in conception, but as a pattern book of the most up-to-date detail, a little more up-to-date perhaps than our other model, the Institute of Chartered Accountants. I think we half believed that the only order of architecture we had to study was the Roman-Ionic, and that that order normally displayed a series of square blocks rusticated the lower third of the shaft. Other articles of faith at the time were that key blocks could hardly be too large or too numerous, that it was a poor facade in which there was not room for at least a score of empty cartouches tied up with mixed green-grocery, that the most pleasing form of pediment was ogee-shaped, and that there was supreme virtue in a flat dome. I suppose that it is rash to speak disparagingly of all this sort of thing, since 20 years hence we shall undoubtedly be averting our eyes with shame from our Grecian pasts, and wondering what we saw in the fret patterns, the honeysuckles, the architraves with corner blocks, the acroteria, and all the other little pleasantries of our present taste. But you will observe, in the kaleidoscope which I am holding before your eyes, that, through all the changing styles, certain buildings stand out as fine architecture more in spite of than because of the details in which they are clothed. Can we hope that a larger number of our buildings to-day may be so

distinguished from the mass by posterity? I think perhaps that we can.

There is one feature in which I fancy that British monumental architecture, at the outbreak of the late war, differed from its immediate ancestry. I think that we knew a little better than our fathers in what part of the architectural body the heart was placed. We still paid periodic visits to an architectural Clarkson's and tricked ourselves out in amazing disguises, but I think that we were beginning to be conscious that clothes were not everything. Now, what is the architectural heart on which the sanity of the whole body must depend? Surely it is something compact of reason and order, to which all decorative considerations are subservient. It is reason and order, as brilliantly dominant in the French mind, that have given to France an unbroken tradition of architectural supremacy in public works. It is reason and order which give us axial planning, the subordination of parts to the whole, just proportion, the due expression of plan in elevation—all the things which make what the ages have agreed upon as fine architecture. Now a great deal is written and said about these elements of our art which is patently nonsense, and I do not expect that any of us are satisfied with our position in our long climb toward truth and beauty. But, after all, it is written and said, and thirty years ago few people thought it worth while writing or talking about. A lecturer on such a subject as mine, thirty years ago, would probably, with the complete consent of his audience, have spent most of his time giving tips for the latest tricks of style and detail which were likely to bring good fortune in competitions. To-day you expect me to discuss design, not petty larceny; and I do not attempt to describe what is meant by "design" since we are all agreed upon that. The only question is how to secure the power of design. Well, we have seen the Liverpool School as in some sort a pioneer, and many other excellent schools following in its footsteps. By the side of the Ecole des Beaux Arts our London and provincial schools may all seem a little suburban, but they are amazingly in advance of the standard of teaching twenty years ago. The trouble with it all is that we are not agreed upon a vernacular style such as that which Paris possesses. I think that it is towards the formation of such a style that all our efforts, and also our self-denial, should be directed. The Paris style and teaching is, if I may say so, fool-proof: it does not hamper genius, but it *does* prevent the wanton and indecent self-revelations in which the incompetent English architect too often indulges. I think that everybody will know more or less what I mean when I say that the architectural manner which appears to have the most widespread acceptance is that associated with the name of Sir John Burnet, and possibly this manner may become our stock method of design. I do not think that if this happens that we shall have any right to complain. Sir John Burnet, whom personally I regard as artistically the head of the profession in this country, will produce

great works where his followers will perhaps only produce little ones; but a training in the general method which he employs will enable anybody reasonably competent to meet most of the difficulties and exigencies of modern practice with an artistic solution at hand. We must not, of course, push conformity too far. Personally I feel that it would be an unnecessary act of mortification for me to fall in with that preference for, shall I call it, the Assyrian, which members of this school so often betray. Sir John Burnet, if I mistake not, brought his perfect technique from France a good many years ago, and perhaps was a little influenced by the great men of that day, whereas we will more suitably be influenced by those of our own.

Let me on this subject utter a word of warning. The student who goes to Paris to study exclusively the Neo-Grec is regarded, and I think rightly so, by the Frenchman as we should a Parisian who made a pilgrimage to England to see exclusively the works of the late William Butterfield. The days of Hittorf and Lobjoust, even of Duc and Ginain, are not our days, and the modern student must, whether he like it or not, regard the works of these artists as belonging to architecture already historical. For heaven's sake don't let us attempt yet another revival! If we go to Paris, let us learn from the living men how to do the work of our own day.

Now the great fault of our modern attempts at Neo-Grec in England is that they appear in some sort conscious attempts at revival of the style of Wilkins, Hardwick, Smirke, Soane—whom you will. We do not study Cockerell, Barry, Gibson, Walters, Alexander Thomson in the right spirit. In fact, our seemingly innate vice of architectural kleptomania never deserts us, and instead of looking in the works of these masters for that which they can teach us in flexibility and modernity, I am afraid that we go nosing about for little bits that we can crib. There is hardly a stone in any one of Cockerell's best buildings which would fit any other situation than its own. That is what we must aim for in our buildings. And if we pile them up of loot from Cockerell it is not very likely that we shall succeed in this aim. After all, the Greek Revival, as seen in the works of Smirke, the Inwoods, and others, was a weak, palsied thing at best, and it is characteristic of our utter lack of even that degree of architectural discrimination with which all other European nations are endowed, that we confound the pedantry of such men as those with the outstanding merit of such artists as Cockerell and the others whom I have mentioned with him. I speak thus strongly because this confusion is one which I have made myself, led into that excessive reaction in which so many of us have found ourselves from the coarse and inflated bombast of the Norman Shaw school. Smirke could find no motif more suitable for the elevation of his National Opera House at Covent Garden—happily burnt down—than a Grecian Doric portico; and I have no doubt that we shall soon be making our cinema theatres behind this august façade. The Bourse

at Paris, the British Museum and Vulhamy's ridiculous front to the Royal Institution in London, are buildings of the absurdity of which I wish that I could feel confident that we were sufficiently aware. By all means let us be as Greek or as French or as Hindu as we like, provided we do not start any of these engaging amusements until we have satisfied not only all the utilitarian requirements of the structure, but also those perceptions of suitability, whether innate or through association, which are superior to all considerations of style. For myself, I have uttered the chief article of my creed when I say that to me Sir John Burnet is our leading architect in monumental design. I also, speaking with all diffidence of what must be in a measure a matter of taste, see in the work of a small school of architects, led by Mr. Charles Holden, a type of design which we need not be ashamed to put forward in Europe as something at once British and modern.

Perhaps here I may pay a tribute to the memory of Edwin Rickards, in whose genius, perhaps, Sir John Burnet's found its match. I hope that it will not be forgotten that his first great opportunity, the Cardiff Town Hall and Law Courts, came to him through the catholic-minded and far-seeing award of Alfred Waterhouse in the competition held for the design of these buildings.

Before I turn from monumental architecture to that in my other two categories, I would like to refer to one point of architectural ethics which often arises in designs of a stately and dignified order. I refer to that which Ruskin, perhaps, first defined as Architectural Truth. Now we all know the way in which, when we have clothed a complex plan in a regular architectural dress, some little feature sticks out and must either be allowed to destroy the regularity of the whole, or must be masked and suppressed. We also know how a regular arrangement of windows is apt to give to some rooms too much light, to others too little, when rooms are of varying size. Very likely we also know what it is to make a design for execution in fine materials and then to have to execute it in mean ones. Now in these cases, and in many others, the question arises as to whether we are justified in dissimulating that which we would not, but must have, or simulating that which we cannot have, but would? I think that what is called "a hatred of shams" is a deposit in our minds from the Gothic revival which clouds our thought when it is stirred. Yet it is only by stirring it that we can hope for any clarification. Let us try to lay aside prejudice and look at the matter impartially. Architecture appeals primarily to the eye, and whatever further appeal it may have must certainly be made through the eye rather than through any other organ of perception. I therefore fail to see that the actual facts and materials of a building are the business of the spectator. Surely, if the delight we have in a beautiful design apparently carried out in bronze and marble is to turn to loathing at the particular moment in which we realise that the bronze is but iron, the marble plaster,

our aesthetic senses are inconveniently involved with our moral scruples, and I doubt if either can gain by the association. Such moral scruples themselves are doubtfully rational. I do not see that we can blame the architect for giving us a pleasing illusion of dwelling in marble halls, any more than we can the conductor of an orchestra who, in default of the real things, gives us bassoons pretending to be horns. What matters is the effect upon eye or upon ear. The means by which the effect is produced are not our concern. On the other hand, a composer will fall into very bad habits if he neglect the characteristics of the bassoon through keeping it constantly busy being a horn. Similarly, the architect will lose much if he forget that plaster has other potentialities beside that of being a good vehicle for the imitation of stone or of marble. Most purely architectural forms have been moulded, if not suggested, by the manner of their making, and this source of invention will be unquenchable so long as buildings are not only drawn but built.

True if you *start* designing a building with the intention of dressing up anything inconvenient to look like something else, you are cutting yourself off from all collaboration with your materials. The natural forces which prompted the inventors of the column, the lintel, the arch and the buttress will stand aloof, sulkily refusing you their aid. Baroque architecture, that amazing and enchanting enterprise in which men sought to make the art of the architect independent from that of the builder, fed upon itself for awhile, fed parasitically upon the art of the sculptor for a little longer, and then died of indigestion. No: the architect must design always as though everything in his building were to be what it appears. Only so can he guard against a host of errors peculiar to those who simulate and dissimulate. No thought must cross his mind that although that stone column looks too weak in itself it will be a steel stanchion really, or that it seems a pity not to repeat those white marble bas-reliefs somewhere, since it is only the first cost of the mould that makes them expensive. If, however, when he has designed his building for real materials, it has to be built cheaply of sham ones, the eye must be his sole judge. If the eye be pleased, well and good. If, however, the scagliola, the stucco, the bronzed iron and the graining are markedly inferior in colour and surface to those things which they aspire to resemble it may be that the architect would have been wiser had he done without them altogether.

I think that it is the same thing with the design of a building, taken as a whole. A man must have a preternatural interest in back staircases if he wishes to see such a feature expressed upon the exterior of a monumental elevation. The part must ever be dominated by the whole, and if the main masses of a building are such as to suggest a symmetrical grouping of them, it is obvious that minor dissimulancies in parts similar in the main are artistically irrelevant, and need not be architecturally expressed. The Gothic revivalists dis-

hked such suppressions and adjustments, and challenged the principle, affirmed at the Renaissance, that it is lawful to give to a composite building the appearance of unity. Of course, the whole war between symmetry and asymmetry resolves itself into a dispute as to what shall be the size of the unit which you elect to make symmetrical. The most symmetrical building in a city must form part of some unsymmetrical group, and there is no building so unsymmetrical that it is not itself a group of symmetrical parts. If you design merely by agglomeration, adding room to room, each room having its own roof visible externally, you will have neither temptation nor excuse for making any one of those rooms unsymmetrical, save in so far as its position in relation to the others may demand. The Law Courts in London are an example of agglomeration nearly as simple as this, and I should not say that, as a design, this great building fails. The Gothic Revival, however, in the main, did not succeed in reversing the decision of the Renaissance that many of the units of ordinary buildings are too small to be expressed separately, and should therefore be combined in larger units, sub-divided so as to suit various purposes.

In consequence of this, it is often found that the regular features of the composite unit will not fit all its sub-divisions equally well. In such a case they must be *made* to fit, and the architect is not reasonably open to blame if he has recourse to a sham window or so in doing this. While on the subject of sham windows, may I register my opinion that the window visibly blocked up is the most abominable of all architectural features, and that anyone designing such a window would be better advised to leave it out altogether. It calls attention to the irregularity which presumably it is intended to conceal. A sham window, to be efficient, should be glazed to resemble its real neighbours, unless indeed the building of which it is a part is provided with external shutters, in which case the sham window may have such shutters apparently permanently closed. The whole moral of sham windows, screen walls, concealed chimneys, and things of the kind is generally one of justification by necessity. The architect who uses them because he had adopted a type of elevation generally unsuitable to his plan must expect short shrift from the critic. But the architect should receive shorter shrift still who lets some silly scruple prevent him from tactfully concealing those inevitable little irregularities which are always lying in wait in these days to spoil any broad and simple design.

II. ECCLESIASTICAL ARCHITECTURE.

This digression on shams being now concluded, I will pass hastily to the second part of my subject, that of Ecclesiastical Architecture.

The various forms of Christian worship for which buildings are required may be divided conveniently, if not accurately, into two classes, the Catholic and the Protestant. Catholic worship is, as it were, centred in acts done at the altar. Protestant worship is not so concentrated, being rather a gathering together of

believers for prayer and praise. Both are customarily supplemented by preaching: indeed, among Protestants the sermon is regarded as among the more important parts of the religious service. Each of these forms of worship has its appropriate type of building. And to these two the nineteenth century has added a third, that which will do for either. The nineteenth century has also largely reproduced a fourth type which does well for neither nowadays, that of the much-divided church of the Middle Ages.

Catholic worship has to a certain extent crystallised since the time when men added aisle to aisle, and chantry to chapel, and money for church buildings has become harder to get: so that the cumulative experience of recent times guides us more along the lines of St. Charles Borromeo's treatise than along those of Pugin's recommendations: more, that is to say, in the direction of the ideal basilica than in that of the complex minster. Pugin fought the point with vigour, and produced a striking diagram to show that three little roofs would cover a broad ground-plan more cheaply than would one big one. This is perfectly true, but it means that you get three buildings instead of one, and that the outside ones, otherwise the aisles, are not well adapted for holding people who are occupied with what is being done in the middle one. I do not wish to labour this point nor to arouse controversy, in which no doubt it could be proved that for some purposes a manifold building is better than a simple one. I merely wish to point out that in Catholic worship, whether at Mass or Benediction, it is extremely important that every person in the congregation should be able to see the altar, and that since the High Altar is normally the altar used there should be space for what may be expected to be the ordinary congregation in the main body of the building, in full view of that altar. It would therefore seem that the large rectangular hall with the altar elevated at one end of it must be the germ of the ideal plan for the Catholic church; and that, although aisles *may* and chapels *will* probably be required, the seating accommodation of these should not be taken into account when estimating the normal capacity of the building.

In Protestant worship the altar or communion table is of less importance. Some denominations have it not, and in all Protestant sects I think I am right in saying that the communion table is of less frequent use than the pulpit. The Protestant place of worship seems to me, therefore, best made of that oldest of all forms for a congregation of people, the amphitheatre. It is surely ridiculous to treat a preacher differently from a lecturer, and nobody would think of building an aisled cruciform lecture theatre, therefore why should one build an aisled cruciform Protestant chapel? I would like to refer here to the magnificent building erected by Messrs. Paull and Bickerdike in Westminster Bridge Road, London, which now holds the congregations of the Rev. F. B. Meyer. Here is a most dignified amphitheatrical structure as fine as marble and stone and oak can make it, in which huge numbers can hear the

preacher with ease both for himself and for them. This building, together with my second example, the King's Weigh House Chapel, by Waterhouse, which is oval on plan, shows conclusively, I think, that a departure from the customary church arrangement does not incur any loss of architectural dignity in a place of worship. I know of another example in London, St. George's Church at Tufnell Park, where an octagonal nave is attached to a short chancel arranged for the service of the Church of England. This picturesque building, designed by the late George Truett, suggests further developments of the auditorium which are tempting to the experimentalist. Two remarkable churches in the form of a short-armed Greek cross shall end my list. They are both by the same architect, the late Edward Buckton Lamb: one is dedicated to St. Martin and stands at Haverstock Hill, the other is at Addiscombe, in Surrey, and is dedicated to St. Mary Magdalene. Both are better models perhaps for a Protestant than for a Catholic building, although there is nothing in the form of either to unfit it for the rites of either worship.

I have now mentioned the types of building which may be described as definitely Catholic and definitely Protestant. When I referred to a third type as being a sort of *en tout cas* which will suit either, I was referring to what must, I think, be the best that we can hope for as yet in buildings erected for the Church of England. In the Church of England there are such wide diversities of practice in the conduct of worship that it is almost impossible for the architect to foresee what use or misuse of his building a change of incumbent may bring about. Certainly the strictly Protestant form of auditorium is not suitable, since that form is not easily fitted for Catholic worship. I think, therefore, that in designing churches for the Establishment it will be wise to take as our model the Catholic basilica, and so fit it as to be a good auditorium as well. During the last century a fashion for choirs consisting of men and boys seated between the altar and the people has become almost universal, but there are now signs that this is changing and that the advantages of placing the singers and organ behind the people, either in a western gallery or on the floor, are becoming widely realised. In collegiate churches there is no doubt that the male choir, vested in surplices, is properly placed in a chancel, and no doubt many churches not collegiate will continue to imitate these arrangements. There is, however, no commanding authority for what I may call our sham choirs composed, not of scholars or religious, but just of disguised parishioners and schoolboys, and therefore the architect cannot be sure that this fashion, with no roots in antiquity, will not go as it has come. I therefore think that a defined chancel, perhaps screened off, is a mistake in any church not definitely collegiate, and I would suggest that the best model for the modern Church of England church is that in which the chancel, so called, is merely a continuation of the nave, with no structural division between the two.

My fourth and last class of church is that mediæval type of which almost every church of the Gothic revival is an example. Here again, where the church is collegiate the type may serve well enough, though I doubt whether open transepts will ever be found to be useful in these days, and if the transepts are to be filled up with organs and vestries and galleries and such lumber, I think we should do better to build proper organ chambers and vestries or sacristies, and not to give them a transeptal form. As for the style of churches, this is a vexed question. The Gothic revival led to an extraordinary degree of proficiency in its best exponents, and equally now that the church-building wave has ebbed we have an extraordinary lack of proficiency. The last giant of the Gothic movement has passed away this year in the person of that very great architect, Temple Moore. There are one or two names which will come to all your minds as those who can keep the Gothic torch burning, but I must confess that when I look at the buildings turned out by some of our famous church architects of to-day and compare them with the achievements of Pearson, of Bentley, of James Brooks, or of Bodley, I feel that the style is indeed dying. Churches should be as nearly everlasting as we can make them. They should therefore be vaulted rather than timber-roofed wherever we can afford this, and I think that ferro-concrete will often enable us to vault a cheap church and will conduct us to a style which will certainly not be Gothic. Now my hope for the future of ecclesiastical architecture in England is that it may not attempt to revivify the expiring tradition of mediævalism, although I do not object to the language in which our new thoughts are clothed being a Gothic one. But I hope that all church buildings in future may be better adapted to our needs than those of the last century can be. The great Tractarian movement in the English Church was so archeological in its tendency that, instead of learning from the experience of the Roman Catholic Church, in all its Catholicising developments it looked backwards over the ages for precedents. Consequently not only did men build mediæval churches, but they used them mediævally. This appears now to be changing, and we may observe that in modern Church of England churches in which the worship is Catholic the tendency is to move along lines parallel with those along which the Roman Catholic Church has travelled during the last century. Protestant needs remain more or less unchanged. The average church building for the Establishment now must therefore be adapted for *all* ritual possibilities, whether for the Service of Benediction or for the Mission Prayer Meeting.

I do not think that I can consider Ecclesiastical Architecture here in any more detail than this, but I would like in concluding to point to the churches designed by Hawksmoor in London as examples of interior design which very nearly fill the requirements of our ideal Established Church. I do not, of course, defend the galleries, pews, or mean sanctuary fittings in these buildings, which are merely the accidents of

their date. I refer solely to the structures. Their style seems to me very noble. To some it will appeal as little as that of Wien's churches does to me. But there is a largeness, a dignity and a suggestion of modernity about them which I think have seldom had justice done to them.

III.—DOMESTIC ARCHITECTURE.

It is a comfort, perhaps, to pass from the consideration of two fields of design in which British architects have no great reason to be proud of their most recent achievements to one in which their supremacy is now unquestioned, that of Small Domestic Architecture. This supremacy has not always been ours, although the times in which our house builders have failed to build well coincide in the main with times of similar failure in other European countries. I do not think that the smaller houses in such Books of Designs as those of Gibbs, Ware and the elder Adam show any superiority over those in De Neufforge, for example. In the early part of the nineteenth century, however, the rising prosperity of our commercial classes produced a demand for a type of small house, either cottage *oué* or villa (this last, a term of high compliment at the time), which many able practitioners were at hand to supply. These little houses exhibit a degree of convenience in their planning which, although far behind the requirements of to-day, is far in advance of that shown in the similar plans which can be found in Krafft and other French contemporary works. Their architectural style was cramped, perhaps, by the exaggerated simplicity imposed upon it by the taste of the time. Still, I think that the present-day architect can profit greatly by a study of such works as Papworth's *Rural Dwellings*, Plaw's *Sketches for Country Houses, Villas and Rural Dwellings*, Soane's *Sketches in Architecture*, and last, but very far from least, James Malton's *Essay on British Cottage Architecture*. These books reveal the existence, at the time of their publication, of a definite school of Domestic Design which had no parallel in any other country than in England. Malton's book, which I have so highly praised, was published in 1798, and is concerned chiefly with the style known then as Picturesque. It will therefore not give any great satisfaction to those students who seek only in works of this period for Grecian details or those which we now agree to call Later Georgian. Nevertheless the engravings in this book show a remarkable perception of the possibilities of what we now describe as the Cottage style, and I think that they mark the birth of that quality in our architecture which has become a by-word to-day with the French, as "le confort anglais." As the 'thirties of the century gave way to the 'forties, taste changed, and a northern Italian style succeeded to the Greek. The text-books of this period are the two volumes of Parker's *Villa Rustica*, together with Hunt's rather shameless imitation thereof, entitled *Architectura Campestre*. The cottage *oué*, in the hands of such men as Wyattville, C. J. Richardson, H. Kendall, junr., and, I grieve to add, Decimus

Burton, became very rampant at this date. Nash's castellated mansions also served as a model for many miniature reproductions, and Swiss cottages had their imitators, so that by the accession of Queen Victoria complete chaos appears to have been reached. The volume of designs published in 1833 by the architect of the old Town Hall here, Francis Goodwin, is a very fair mirror of the time. In this most interesting work, the Grecian, the Castellated Gothic, the Cottage Gothic, the Italian and the Moresque are mingled with admirable impartiality, sometimes even in one design. This welter of styles continued for about ten years, at the end of which time the Grecian, the Castellated Gothic and the Moresque fell out, leaving the Italian, the Cottage Gothic, and a new arrival, the Parsonage Gothic, in possession of the field. During all this time I think that we may say that if we did badly other nations did worse, and it is certain that our plans, although still far from convenient as convenience is now reckoned, were superior to those of contemporary Continental houses. Superior in comfort, that is to say, for in balance and proportion of parts they do not possess very much merit. Architecture is so much a matter of fashion in all those small buildings in which fancy may fairly take the place of rule, that I think we shall be wise in moderating the severity of the judgment which we are tempted to-day to pass on the work of this date. French smaller domestic architecture stands now in the main where English did fifty years ago, and I doubt if we are prudent in overprizing what the most artistically gifted people in Europe have not thought it worth while to acquire. I say this by way of preface to the consideration of that remarkable movement which began, I suppose, with the building of William Morris's house near Bexley by Philip Webb in 1859. We are apt to think this movement of supreme importance, and to compare the intimate and charming work of to-day with that of fifty years ago in a spirit of over-great vainglory. Certainly we now can do many little things very exquisitely, but it is questionable if this power has not been acquired by diverting too much attention from great things to small. You remember the remark about too great skill at billiards being a sign of a mispent youth? Well, for thirty years, while the French have been refining and developing their noble rhom of formal architecture, we have been pre-occupied with minor details of handicraft. We both have our rewards.

But to resume our lightning excursion through history—the movement inaugurated by Philip Webb was furthered by many sensitive and poetical designers, among whom I may particularly mention E. W. Godwin, W. E. Nesfield, Thomas Garner, Basil Champneys and George Devey. Other even better known names will occur to you. The greatest of them all I have reserved for separate mention, that of Norman Shaw, to whose credit the greater part of that most typical of all productions of the time, Bedford Park, is due. Contemporaneously with this new movement, architects like Waterhouse, Teulon, Salvin, George Somers

Clarke, John Douglas and others remained in the main faithful to a Gothic tradition little infected by the Queen Anne.

It is almost impossible fairly to judge the condition of domestic architecture in England, say in the year 1880. Most of the men whom I have just mentioned were still at work and were extremely proficient in uniting the convenient with the picturesque. The plans of the houses of this period are indeed commonly quite up to the standard of to-day in every provision for domestic comfort, save only that bath rooms were few and far between. Architecturally, to us, the greater number of them appear as no plans at all. Those of Devey, for example, although reputed as among the most convenient of his time, appear to us incredibly haphazard and malformed. Waterhouse in planning could do no wrong, but his domestic style is to us unpleasantly municipal. Norman Shaw's plans have the merit, if merit it be, of giving the impression of mediæval plans ingeniously coaxed up to date, and lend themselves remarkably well to the contrivance of picturesque elevations.

And yet the reaction from this school which followed in the nineties was not towards architectural planning. It was rather towards a sort of elaborate baldness in design. This curious movement can best be studied in the pages of the *Studio*, where will be found fervent exhortations to the art of architecture to strip off all its garments and ride through the streets like Lady Godiva for the common weal. The simplicity which was urged upon us by the professors of the new cult, a simplicity which claimed to be exaltedly utilitarian, was not a real one. You had to learn the trick of it just as you had to learn the trick of the Norman Shaw "picturesque." There was a mysterious ritual of round windows, sloping buttresses and water-butts into which initiation was necessary before one could dare to practise the new style.

Well, that is all dead, and what are we come to now? Chiefly, I fear, to a preoccupation with that recently discovered faculty, "sympathetic handling of texture," combined with just as irrational a practice of forcing symmetry as yesterday's practice of forcing irregularity. In the spirit of playfulness it may be justifiable enough in a small cottage to make of a summer-house and a garage twin pavilions flanking the main mass, but if done seriously this sort of thing very soon becomes ridiculous. So does the habit of gathering chimney flues from all quarters of the globe in order to bring them out of the roof in one huge central stack.

I will not labour this point further, but will bring my already long talk to a close with a few remarks on what I consider the proper importance of our modern fetishes, varied texture and broken colour. I do not

think that it is true to say that the eighteenth century was indifferent to colour and texture in architecture. On the contrary, I think that just as decided views on these matters were held at that time as in our own, so that the subject is not a new one, although opinions upon it have changed. The old-fashioned specification which requires that bricks should be perfectly true and of a uniform colour, that slates should preferably be all of a size, that mouldings run in plaster should be sharp, and that everything that *could* be sand-papered *should* be sand-papered is probably a direct descendant of the specifications prepared in the offices of such gentlemen as Sir William Chambers and Sir Robert Taylor. Nowadays we specify that everything that *can* be done haphazard *shall* be done haphazard. Within limits it is all a matter of taste, and the present taste is for rough surfaces and soft outlines. I remember that in an admirable essay by Mr. Barry Pain there is a comment upon a similar change of taste in what is called artistic photography. What an advance there must be in art, he observes, if what would certainly ten years before have been called "landscape out of focus and badly fogged," is now called "When the mists creep down the hills." The passion, however, for the thumb-mark of the British workman is a fairly recent one. It is immaterial to architecture and does little harm. It began in the days of the romantic revival when church architects discovered that Portland stone ashlar was less suitable for London churches than Kentish rag.

If the design of a building is right, it will take a lot of bad colour and texture to spoil it, and I think that in these we shall not lose our souls by following the fashions of our time if public taste so compel us. The only æsthetic rule involved in our choice of building materials and methods of workmanship is that these must not be finer than the design which they embody. A picturesque cottage would not be suitably built in Pentelicon marble, for example. It matters much less, however, if the materials and workmanship are a little ruder than they need be. A severe design may prove more digestible to the lay critic if it be invested in what are now felt to be the charms of broken surface and tint, and it will generally suffer as little as it will gain by the investiture. Therefore I should say that if your client choose to pay for Dutch bricks, let him have Dutch bricks. If he choose to pay for hand work where machine work would do, let him have hand work. But do not over-estimate the importance of these things, and, above all, don't rely upon them to do your designing for you. The ultimate test of a design is whether it be pleasing in an outline drawing. I wonder how many buildings of our own time, or of those in the century preceding it, would bear that test?

ARCHITECTURAL EDUCATION.

Papers read at the Franco-British Conference of Architects held at Paris, 13th-15th November, 1920.

VII. THE NEW SYSTEM OF TEACHING CONSTRUCTION IN THE UPPER DIVISION OF THE ECOLE DES BEAUX-ARTS, PARIS.

By M. E. ARNAUD, Professor of Construction,
Ecole des Beaux-Arts.

PREPARATION FOR THE COURSE OF CONSTRUCTION.

The Ecole des Beaux-Arts, like most of the great schools of France which train builders, has recognised the necessity of entrusting to specialists the teaching of the numerous and varied matters which form the indispensable equipment for anyone who intends to direct or contract for building works.

Besides the course of General Science, the architectural student learns in the lectures on Resistance of Materials the theory of the distortion of various parts under different strains, the working out of formulae enabling him to calculate the dimensions of the elements of construction: that is to say, he learns the means of controlling his ideas scientifically.

In the course on Physics, Chemistry and Geology he is taught the nature, the properties, the qualities or defects, and the fabrication of all the building or cementing materials which he will have to make use of in construction.

In the course of Stereotomy he learns stone-cutting, and the shaping of wood and iron, as well as the methods in use for uniting wood or iron.

Lastly, the course of Legislation teaches him whatever relates to building construction in the Code.

When thus prepared he enters upon the technical and practical course of Construction, at the beginning of which, in order to complete his knowledge of building materials, a chapter is given to reinforced or banded concrete, which is both a material and a method of construction.

This year great alterations are to be made in the methods of teaching in this course which it may be interesting to explain.

DIFFICULTIES FOUND IN ALL SCHOOLS IN THE TECHNICAL AND PRACTICAL TEACHING OF CONSTRUCTION.

These difficulties are due to the ever increasing number of subjects which it is necessary to teach. This increase arises first of all from the new methods of construction which come up every year in all countries and from the improvements brought about by the skill of the engineer and the architect.

Secondly, it arises from the fact that the progress of science tends to transform all buildings, public and private, into so many factories, so that the architect, in order to remain master of the work, is compelled to be constantly extending the field of his acquirements.

Lastly, the greatest difficulty arises from the fact that practical skill can only be really attained in the

yard. Yet some means must be found to teach it in the lecture room. For the students to visit the work-yards under the direction of the Professor is in reality impracticable—for the following reasons:—

(1) There is not always a yard interesting enough to visit at a given moment.

(2) In visiting a yard one sees only a passing stage, a special type of construction, for instance, that is a small matter in the mass of knowledge which has to be acquired.

(3) In these visits, the eight or ten students only who are next the Professor get much good. It implies a great waste of time for the small amount of instruction gained.

(4) Lastly—and this is the gravest point—what would be the position of the Professor or of the school with regard to any students who might meet with an accident during these visits?

The result is that an architectural student has the greatest difficulty in getting practical knowledge, even when he comes out of the school, unless he enters some workyard without pay. And even so, what would he learn with no one to guide him, and how many years would be needed? What master would run the risk of giving him paid work in the yard? What useful work could he do at first? Besides, it would be especially as a draughtsman that he would get employment. How would he then learn practical work?

There is therefore a gap to be made good in the teaching. And this has to be done just at the time when in France we have the most pressing need, in order to restore our devastated provinces, of a regular forcing ground of first-rate builders, who must be turned out rapidly and surely that they may be of use in the yards from the moment of their leaving school, and that they may perfect themselves by their own endeavours wherever they happen to be.

The Council of the School of Fine Arts, like that of the Central School of Arts and Manufactures, has clearly seen the gravity of the situation, and of the problem which is urgently placed before our country. These two schools will be the first in France to effect a radical change in their method of teaching construction. The system which has been in use till now—viz., to have lectures with dictated notes, accompanied by drawings reproduced in the lecture room—must be given up. It is too slow a method of teaching for the present state of things, and one which cannot teach the twentieth part of what it is necessary to know. It is fatiguing for the student, who, wrapped up in the material work of note-taking, cannot give himself up entirely to the professor's line of thought, and is not penetrated by it so that it becomes engraved on his mind. Besides, he makes mistakes both in his notes and in his drawings—consequently, knowing that these are not only incorrect but incomplete, it is rare for him to trust to them in his subsequent career.

THE END TO BE AIMED AT.

A method of teaching must therefore be devised which is both technical and practical, very complete though rapid, which interests the student and keeps him up to the mark without fatiguing him, which develops in him the primary faculties of observation, reflection and judgment, permitting him by applying the principles which are given to him to seek for himself solutions which are exact and of his own discovery. In a word, the temperament of the constructor must be formed in him. For that he must not be overburdened with work: the time lost in useless material work must be struck out and replaced by work constantly directed into the right channel. Lastly, he must be supplied with plenty of memoranda, well classified, which will be a real support to him in the exercise of his profession.

He ought to be able to find amongst these memoranda the right constructive methods, and the experience which otherwise he could only acquire at the end of a long career. The knowledge gained should be such as will enable him to be at once of real use in the yards while allowing of his perfecting himself in practice. It should, in a word, put him in the way of flying with his own wings without running the risk of breaking his neck. That is the ideal which we must keep before ourselves, though we must not expect to arrive at it all at once.

In order to carry out this sequence of ideas a system of teaching has been on trial at the Central School of Arts and Manufactures for the past year and at the School of Fine Arts from the beginning of the present year (1920).

The students no longer take notes at the lectures. They listen to the Professor, who gives in his lecture a complete description of the construction of an imaginary building, involving every method of construction and presenting every difficulty in execution from the moment of taking possession of the site till the work is finished and certified.

In order to give more life to the course, special points in the building are not dwelt on separately; they are gone into in drawing up the specifications, conditions, estimates and contracts. In the technical and practical part of the course the construction is studied in the same order as actual practice would impose. The different problems are examined one after another as they would come before the builder, and the trades are dealt with as they are wanted. The student learns practice at the same time as construction, and later when he is left to himself he will only have to follow the course of his teaching in order to be sure of foreseeing everything and of settling it at the right moment.

Thus in the matter of excavation, a study is made of shoring up not only the earth but the neighbouring buildings, and of under-pinning.

As to foundations, not only the known systems are studied, but the student has given to him the means of settling the kind of foundation which he ought to

use for such buildings as he is likely to deal with in practice.

In the case of underground walls, not only are the different methods of construction studied (masonry—reinforced concrete), but also questions of water-tight basements, with or without pressure of water from below: the question is also studied of so constructing them as to avoid the transmission of tremors. This is done because later on when actually engaged in building it would be too late to think about it.

I have said enough to show the spirit of the teaching. The student is enabled to see at each lesson the building being constructed bit by bit right up to the end. He understands the order of the place of each thing, the difficulties which may arise and the way to get over them. All this is taught by means of numerous diagrams and commentaries. The principle which settles each question is first of all laid down, and at every opportunity the diagrams give—

(1) The basis of the principle.

(2) The setting out in drawings of this basis.

(3) Views of this setting out in course of execution in the builder's yard.

By these means visits to the yards will be replaced. From the beginning to the end of the erection of a building the student will follow the clue from theory to execution.

The visits which a student may make for himself to the building yards—visits which are recommended—become thus extremely profitable, and he can do without a guide: for all that is said or drawn in the lecture theatre, and many other things, are to be found in the printed lectures, which consist of some 2,000 pages of text and 5,000 to 7,000 sketches, drawings or views of building yards.

But above all, these courses allow him with a perfectly quiet mind to give himself up entirely to the subject which is being treated by the Professor. With the minimum of fatigue the student gets a grip of the subject and is able to keep a clear and lasting impression of it in his brain.

DANGER OF A COURSE ONLY MADE BY DIAGRAMS.

The first danger of this course, against which the student is warned from the beginning, is that it may seem to him so easy that he need not trouble to work at it.

The second danger is that as he does not draw in the lecture-theatre, the student loses an opportunity of exercising himself in the true language of the architect, which is to express his thoughts in drawing.

The third danger lies in the fact that in the mass of memoranda which is given to him the student may not be able to distinguish the more valuable from the less important. He may lose himself amongst them and by excess of zeal tire out his mind by learning things which he merely wants to know where to find when required.

These three dangers can easily be avoided by the Professor, who should guide the student in his work and point out to him the kernel of facts essential to be acquired, around which other facts will come to group themselves naturally in the course of his career. For this purpose, at the beginning of the year two printed lists are given to the student. The first indicates all the drawings or sketches of the course which he will have to reproduce from day to day in a note-book which will be asked for in the lecture room and at the oral examination at the end of the course. One or two hours a day at the outside are all that is needed for these drawings. They have to be freehand, but very exact. The note-book has about 360 pages, taking in all about 500 sketches. These sketches have to be made every day after each lecture while the lesson is still fresh in the student's mind. They revive it and fix it. They replace in a much more complete manner as regards the teaching the three drawings required up till now from the students during their "construction" year—drawings which from the number and size of the strainers (especially the latter) represent several months' industry, but industry in which the work was purely material, of no use for teaching construction, much too heavy, and causing loss of time and a serious money expense for the student. The whole of what was really useful in these drawings so far as the teaching of construction is concerned would go into about 30 pages of the sketches of which we have just been speaking.

The second list, given also to the student at the beginning of the year, sets out in a very exact way the questions, in number about 150, which will be the only ones asked in the oral examination at the end of the year. The list gives from amongst the drawings of the sketch-book those which the student will have to reproduce on the drawing-board to explain the questions that he will be asked.

This represents the kernel of the indispensable knowledge, of the fundamental principles and their practical application. The student must therefore prepare himself for the final examination from the first lesson, and in fact he does prepare himself of necessity by keeping his sketch-book made up from day to day. The evening before the examination a revision of the sketches which will be the only ones asked for recalls to his memory the whole course. Thus the heavy work of the years' ends, of which nothing remains after a short time, is avoided.

Let me say in closing that after the final examination, to test whether the student can completely realise his idea both from the point of view of composition and of construction, an architectural design ("projet"), whose subject is given out after agreement between the Professor of Theory and the Professor of Construction, is set at the same time to the students who are aiming for a mention in architecture and to the constructors as a final test ("projet") of construction. For the latter fifteen or twenty days more are given so that they may show the details of the construction exactly in their drawings.

Such are the modifications made in our school. We hope in a year, without increasing the hours of work which the student can give to construction, but by a better use of those hours and by a plan of work easy, regular and continuous, to give him first of all a taste for construction and then solid and serious knowledge, putting him on a level with the task which he will have to fulfil. Experience will show what further modifications will be needed in order to attain ever better and better the aim which we have in view.

CORRESPONDENCE.

The Cunard Building.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Mr. Willink's Paper on the Cunard Building was followed by a discussion which, though uniformly and highly complimentary, never struck the note of enthusiasm which not only this subject but the style and delivery of the Paper and its fine illustrations should have evoked. Not the least merit of the Paper was the author's magnanimity in ascribing the success of the design—namely, to his late partner, Mr. Thicknesse, and to the consulting architects. Those however who, like myself, know the author of the Paper, can testify how great is his share in this work. The firm is an example of the immense advantages of a combination of artistic and business talents, and when this combination exists, more or less, in the persons of both partners, it is not wonderful that, given a great opportunity, the result is satisfactory.

Mr. Willink's challenge to his audience to criticise the architectural style and to say whether the fusion of certain elements in Italian and French Renaissance was warrantable, was not taken up. How could it be? When the finished elevation of the Cunard Building evokes so general an expression of pleasure and satisfaction on the part of a large professional audience it is scholarly and beautiful, and there is really nothing more to be said. When, moreover, in addition to this admirable exterior one can invite inspection of an interior exhibiting grand simplicity of plan, sense of proportion, space, dignity of architectural treatment, great variety and refinement of detail and delicacy of colouring, Professor Adshead was not wrong in expressing an opinion that this Cunard Building is far and away the best building of its class which has yet been erected either in this or other countries, and Mr. Selfridge's lament to the A.A. over the poverty of our commercial architecture needs qualification. The Association students should visit Liverpool.

A personal touch may not be without interest in connection with this matter. From two independent sources London men who were associated with Messrs. Willink and Thicknesse have told me that so delightful was the spirit with which all departments of the business were carried on that they looked forward to their visits to Liverpool as times of refreshment rather than of toil.—Yours faithfully,

W. H. SETH-SMITH [F.].

Architectural Competitions.

3, Buckingham Street, Westminster, S.W.
23 Feb. 1921

To the Editor, JOURNAL R.I.B.A.,—

SIR.—The suggestion of the President that in all Competitions the price per foot cube at which the cost of the building will be estimated should form part of the instructions to competitors appears to be an excellent one.

I venture to suggest that the R.I.B.A. might insist that in Competitions for Public Buildings the drawings to be submitted be limited to plans, elevations and sections drawn in pencil to a scale of 1-16th inch to 1 foot, and that after the assessor has selected what he considers to be the three best designs, a view of each of them, in each case from the same point of view, should be drawn by a perspective artist to be selected by the Competitions Committee and paid for by the clients. The perspective artist would be prohibited from "cooking" his picture and would be instructed to use the same medium, a monochrome, in each case. Two other assessors would be called in at the last moment to assist the first assessor in his final selection and would adjudicate on the competitors' drawings and the perspectives described above. The additional cost of the three perspectives would be infinitesimal in proportion to the cost of the building, and a truer appreciation of the appearance of the building and of the merits of each design would be obtained than is possible under present circumstances.—I am, Sir, your obedient servant.

W. L. LUCAS [F.].

Architectural Students' Competitions.

Architectural Association,
22 Feb. 1921.

To the Editor, JOURNAL R.I.B.A.,—

SIR.—Mr. Keen takes me to task for not bringing my views before the Institute instead of the public press: but as my criticism largely extended to bodies over whom the Institute exercises no control such a course would have been of little value. The Institute, although its committees do their work exceedingly well, is not, however, blameless, and I would remind Mr. Keen that neither the Council of that body nor the members of the Board of Education generally had any say in the appointment of this last year's Prize Committees. My entire argument rests on the fact that the constitution of the jury or committee is the essential element of successful adjudication: given the proper jury minor details will disappear of themselves. Some committee or jury is no doubt appointed to draw up the conditions and programmes, and, logically, the same committee should make the award. Where, therefore, arises the difficulty of publishing the names of the jury with the programmes? In attacking a system one does not necessarily attack individuals, and, for my part, I have always found the older members of the profession exceedingly kind-hearted and generous, not least so Mr. Keen.

The present-day student, however, is quite ready

to take his gruelling standing up, and much prefers a frank and critical statement of the defects of his work to a uniform measure of well-meant encouragement, and expects in return carefully studied programmes, rigorous conditions, and critical logical awards.—Yours faithfully,

ROBERT ATKINSON [F.],
Director of Education, A.A. School.

To the Editor, JOURNAL R.I.B.A.,—

SIR.—These remarks are suggested by the letters which you have printed from Mr. Robert Atkinson, the Director of Education at the A.A., and Mr. Arthur Keen, Hon. Sec. of the R.I.B.A. I do not wish to intervene in their correspondence. It seems to me of secondary importance to argue about the relative incompetence of elderly architects as adjudicators on students' designs when contrasted with the abilities of junior judges. The latter are said to be more in sympathy with up-to-date ideas and individually in touch with the competitors. However that may be, all the judges ought to be independent, and, after all is said, I reckon their ages cannot matter so much as the fundamental consequences involved when any teacher, master, or professor in charge of any class, school or college is associated personally with the setting of the problems or subjects for pupils' competitions or in the assessment of the prizes, medals or scholarships (either at the Institute or for the Prix de Rome) among competitors who mainly comprise students attending their classes, schools or colleges, where such pupils are coached more or less directly to enter these lists. Outsiders or provincial students, who prepare for these contests beyond the scope of such judges' influence or tuition, must stand at some disadvantage in this respect, and I suggest it would be wiser, more fair and above board if every competition for pupils' prizes should from start to finish be conducted without the participation of interested parties engaged upon the development of any particular educational establishment, either in London, Liverpool, Manchester, or other incubating centre for the architects of the future.

Yours faithfully,

MAURICE B. ADAMS [F.].

Fixed Tenders for Building Work (p. 228)

115, Gower Street, W.C.1, 25 Feb. 1921

To the Editor, JOURNAL R.I.B.A.,

SIR.—If Mr. Cubitt's reply is the best defence that the Practice Committee can make, I consider it so weak as to scarcely call for a reply, but should like to point out to Mr. Cubitt and the Committee one essential fact that they seem to have entirely overlooked. When a client contemplates building on a cost-plus-profit basis, quantities should be prepared in the usual way, and submitted with the special conditions, to selected contractors; they are then priced *ret.* in competition. The accompanying conditions, amongst other matters, point out what profit will be allowed,

and this sum when arrived at, the contractor adds to his net cost total. Thus the total expenditure is arrived at, and the client knows exactly what his building will cost. All savings effected as the work materialises are deducted, and the profit correspondingly decreased. Further, the client reaps the full benefit of any drop in prices that may occur during the progress of the work. Such a thing is not possible on a fixed tender. Again, in pricing on a fixed tender basis almost all reliable contractors so protect themselves to-day by conditions relative to increased prices, etc., that a client is no more certain what he will be called upon ultimately to pay than he is certain when he will take possession of his new premises.

The latter part of Mr. Cubitt's letter entirely begs the question, and is simply based on the supposition that his argument is correct. For my own part, having developed the cost-plus-profit method of building, I am confident that any architect thoroughly conversant with the system can give his client far better value for his money than by any other known method.

I still think that the Committee should furnish the profession with a summary of the deliberations that led them to come to what in my opinion is an erroneous conclusion, as the advice of other architects with more experience may cause them to alter their decision.

Yours faithfully

G. SCOTT-COCKRILL [A.].

Common Sense in Building Construction (p. 229).

To the Editor, JOURNAL R.I.B.A. —

SIR,—I did not overlook Mr. Waldram's note on the drawing, but I took it to convey the elementary information that half the load on the joists is carried by the beam, the other half carried by the wall or partition.

It now transpires that Mr. Waldram allows 56 lb. per square foot (inclusive) on the joists, and 28 lb. per square foot (inclusive) on the beam. The constant dead load absorbs 10 lb. per square foot, leaving an allowance of 18 lb. per square foot superload on the beams. If the Ministry of Health approve this superload, perhaps I should not blame Mr. Waldram for adopting it, but as there is usually only one floor beam in each cottage, "common sense," rather than invite disaster, would reject the temptation to save eight or ten shillings on the total cost of the cottage.

Mr. Waldram's "revolutionary" discovery of 6-inch by 2-inch joists, 12 feet span, at 2-feet centres, compares not unfavourably with his own 7-inch by 5-inch beams at 7-feet-6-inch centres. The test by which Mr. Waldram lays great store does not impress me. A man danced on a floor (Fig. 1) in which each joist represents 14 square feet. The same man danced on the floor (Fig. 2) in which the beam represents 90 square feet and Mr. Waldram detected *no difference* in the behaviour of the two floors. As the test-load was out of all proportion to the represented areas I should claim it a decided victory for Fig. 1.

The crowded auction sale is not a "remote contingency" (even in the smallest bedroom), and should always be considered as the minimum load in any building; the L.C.C. 70 lb. per square foot covers the weight of any crowd of people. Two hundred yards from where I write a floor collapsed during an auction sale not many years ago.—Yours, etc.,

D. WEBSTER ROBERTSON *Locentotte*.

Sta. Sophia, Constantinople.

6, New Court, Lincoln's Inn, W.C.

22 Feb 1921

To the Editor, JOURNAL R.I.B.A. —

SIR.—It is unfortunate that the religious use and ownership of the Metropolitan Cathedral of the Eastern Church should be discussed in our professional Journal, but as you have reported Professor Simpson's desire that the conquering Asiatic Turks should still hold by the sword the Church of the Divine Wisdom of the Incarnate Word of God for Moslem worship, because forsooth of political and Christian amosities, I should like to express the contrary view.

Would we Britons desire to see our Canterbury Cathedral a mosque and our Primate housed in a slum? Yet this is what the unredeemed Hellenes have to put up with! The Archbishop of New Rome is senior to the Metropolitan of Athens and is Primate of the Eastern Church, therefore the handing of Saint Sophia over to Athens does not arise. It must be returned sooner or later to the Patriarchate and become again the rightful centre of worship of the Eastern Church and a great wrong permitted by the Western Church righted. Professor Simpson also forgets that most of the great mosques of Stamboul were built by Christian architects for their overlords.

It was not so very long ago that the Parthenon at Athens and the churches in Salonica were mosques; we will soon forget that Saint Sophia had been a mosque.—Yours faithfully,

[ARTHUR E. HENDERSON, F.S.A. *Locentotte*].

Whitsuntide Tour in France.

1, The Meads, Harley, Cranbrook, Kent.

1 March 1921

To the Editor, JOURNAL R.I.B.A. —

DEAR SIR,—When lecturing last January before the Northern Architectural Association, I was urged to resume the architectural and sketching tours to the Continent, which I conducted regularly for some 25 years before the war. I demurred at first, being no longer a young man, but have given way, and am endeavouring to gather a party to visit Normandy at Whitsuntide.

So far as it can be decided yet, and subject to the exigencies of the tidal boat service between Havre and Caen, it is intended to leave London at 8.30 p.m. on Friday, May 13th, and to proceed to Caen, staying there till Thursday, May 19th, and meanwhile making

day excursions to Bayeux and the Chateau Fontaine Henri. Then, returning to Havre, the remaining time would be spent there, paying visits to Griville Abbey and Hartleur (which are within walking distance or can be reached by tram), and making day excursions to Hondeur and to the Roman Amphitheatre at Lillebonne.

The journey home from Havre would commence late on Monday, May 23rd, London being reached early next day.

The total cost, including 1st class travelling, hotel expenses (3 meals a day) and tips, will be £17 17s. from London, or £17 from Southampton. This will be exclusive of meals on the journeys out and home and of beverages.

I should be glad if all who intend going would kindly send me cheques at this rate by Saturday, April 23rd, at latest, to enable the final arrangements to be completed. Any friends who are willing to share bedrooms would oblige by letting me know their wishes in this respect at the same time.

The party will not necessarily be confined to architects, but others (including ladies) who are genuinely interested in architectural study will be welcome to join. Special facilities will be sought for sketching and photography, and it is hoped that all will participate in this work. I have been over the whole ground myself on more than one occasion and have carefully chosen the route for variety of interest and study value.

Passports will be essential, and these should be applied for some few weeks in advance on forms to be obtained from the Passport Offices, 1 Lake Buildings, St. James' Park, London, S.W.1. After these have been secured they will have to be shown personally for *visa*, at the French Passport Office, 7, Gower Street, W.C.1, or else at 79, High Street, Southampton, or some other French Consulate.—Yours faithfully,

G. A. T. MIDDLETON [A.].

THE LIBRARY.

Notes by Members of the Literature Committee on Recent Purchases.

[These notes are published without prejudice to a further and more detailed criticism.]

THE PRACTICE AND THEORY OF PERSPECTIVE AS APPLIED TO PICTURES, with a section dealing with its application to Architecture. By Rex Vicat Cole. Illustrated by 436 drawings and diagrams by the author, and 36 pictures chiefly by old masters. 8vo, Lond. 1921. 18s. [Seeley, Service and Co., Ltd., 38 Great Russell Street.]

This is a valuable contribution by an able exponent of a subject in which all architects must think out their conceptions. In a volume of 279 pages we have 436 drawings and diagrams illustrating the matter dealt with. It is written by a painter, and provides some six or seven chapters on subjects of special interest, from an architect's point of view, in the first Part alone. Of the two other Parts in the book, one, the last, is devoted to 'Mechanical Perspec-

tive,' and is almost entirely architectural in interest. If comparisons may be suggested, this book seems to cover the whole field better than any other we have seen.

H. C. C.

MAP WORK. By V. Seymour Bryant, M.A., and T. H. Hughes. Illustrated by 91 diagrams and drawings by the authors. 8vo, Oxon. 1918. 3s. [The Clarendon Press.]

This book may be regarded as a very useful addition to the literature which deals with the technical aspects of the representation of landscape. Prepared in the first instance with a military object, it has an architectural value in that it serves the uses of town planners who wish to draw with quickness and accuracy the contours and other natural features of a site. It will specially appeal to every one whose interest in maps has been stimulated by the City Survey Exhibition recently held at the Institute.

A. T. E.

THE AMERICAN HOSPITAL OF THE TWENTIETH CENTURY: A Treatise on the Development of Medical Institutions, both in Europe and in America, since the beginning of the present century. By Edward F. Stevens, Architect. Illustrated. 8vo, New York, 1918. 30s. [Architectural Record Publishing Company.]

LONDON TREES: Being an Account of the Trees that succeed in London, with a descriptive account of each species and notes on their comparative value and cultivation. With Guide to where the finest London trees may be seen. By A. D. Webster, Author of *Practical Forestry*. Illustrated. 8vo, Lond. 1920. 15s. [The Swarthmore Press, 72 Oxford Street, W.]

A work that very suitably carries on the information given in the *Manual of the Timbers of the World*, added to the Library collection last month. In times when the architect is largely responsible for the choice of the trees with which it is proposed to form the avenues and line the roads of the garden city or garden suburb, advice from an expert as to those most fitted to endure the circumstances of a London life is valuable, and may be found in Mr. Webster's work. It shows how great is the wealth of our city in this direction, and its 32 illustrations, alone, offer as many alternatives to the almost inevitable plane—the easy choice of the unenterprising planter.

C. H. T.

UM 1800. ARCHITEKTUR UND HANDWERK IM LETZTEN JAHRHUNDERT IHRER TRADITIONELLEN ENTWICKLUNG. Herausgegeben von Paul Mohr, Architekt. Zweite auflage bearbeitet von Walter Curt Behrendt. 4to, Munchen. 1918. £1 8s. Verlag F. Bruckmann, A.G.]

The scope of this work is indicated by the sub-title, 'Architecture and Handicraft in the last century of their traditional development.' The later stages of the classical tradition passing from the Baroque to the Empire in Germany—to which Alsace, Holland, Denmark, Norway, and parts of Russia are annexed for the purpose—from the middle of the eighteenth century to the middle of the nineteenth, are admirably illustrated by well-selected photographs in great variety of buildings of all classes in town and country, monuments, interiors and furniture. French influence and a severe restraint and dignity are the ruling notes.

W. H. W.

HERMANN SCHMITZ, BERLINER BAUMEISTER, VOM AUSGANG DES ACHTZEHNTEN JAHRHUNDERTS. Mit 386 Abbildungen. 40. Berlin. 1914. 32s. [Kunstwissenschaft, Berlin.]

This work, covering the work of architects practising in and around Berlin in the late eighteenth and early nineteenth century, forms an excellent companion to the volume noticed above, but is specially concerned with palatial and public architecture. It is equally well illustrated, and contains a series of extremely interesting examples.

W. H. W.

LES MAÎTRES ORNEMANISTES. Dessinateurs, Peintres, Architectes, Sculpteurs et Graveurs, Écoles Française, Italienne, Allemande et des Pays-Bas (Flamands et Hollandaises). Ouvrage renfermant le Répertoire Général des Maîtres Ornemanistes avec l'indication précise des pièces d'Ornement qui se trouvent dans les collections publiques et particulières en France, en Belgique, etc. Par D. Guilmard. Publication enrichie de 180 planches tirées à part et de nombreuses gravures dans le texte, donnant environ 250 spécimens des principaux maîtres et précédée d'une Introduction par M. le Baron Davillier. Two vols. la. 40. Paris. 1881. £1 15s. [E. Plon et Cie, 10 Rue Garancière, Paris.]

It was high time that this indispensable standard work should be in our library. In it will be found all that was known at the date of publication of the decorative designers in the widest sense of the term of France, Italy, Germany, and the Netherlands, and a *catalogue raisonné* of their prints and drawings, illustrated (in the 2nd volume) by reproductions of typical examples of their work.

W. H. W.

LES CONCOURS D'ARCHITECTURE DE L'ANNEE SCOLAIRE 1919-1920. Onzième Année. 1^{re} Série. Planches 1 à 34. (École Nationale Supérieure des Beaux-Arts). Sm. fol. Paris. 1921. 25s. [Auguste Vincent, 4 Rue des Beaux-Arts.]

This portfolio contains 236 plates of the work of students of the École des Beaux-Arts. In the large range of subjects dealt with the memorial in all its varied forms is the predominant feature. The draughtsmanship is of the high order that the Beaux-Arts has made familiar to every one. A valuable book of reference to all students of modern architectural problems.

H. A. H.

ARCH. PROF. DARIO CARBONE COSTRUZIONI E PROGETTI. With a Preface by F. M. Martini. Portfolio. 100 plates. Milan [n.d.] 42 8s. [Bestetti E. Tumminelli, Milano.]

One hundred plates, recording the life-work of a contemporary Italian architect of great vigour. Rome and Genoa have been the fields of his operations, the merits of which are in inverse ratio to their exuberance. Certain palaces in the Via della Pace and Via Ettore Vernazza at Genoa are in the fine Italian tradition of massive restraint, relieved by bold and lively ornament sparingly applied at salient points. That the Bourse in the same city makes a less intimate appeal may be gathered from the remark of Signor Martini, in his introduction, that it "may claim to echo the wildest expressions of the lust for gold," and those who like that sort of thing must like this one very much. Rome has exercised its sobering influence, and Prof. Carbone's work there is dignified and rational. The book shows clearly how much vitality there is in the Italy of to-day.

H. M. F.

LES VIEUX HOTELS DE PARIS: LE FAUBOURG SAINT-GERMAIN. Tome IV. Décorations Extérieures et Intérieures. Notices Historiques et Descriptives par J. Vacquier. 12^{me} Série. 40 planches. fo. Paris. 1920. £1 7s. [F. Contet, 9 Rue de Bagneux.]

Forty plates, with short descriptive text and plans, of seven hotels on the left bank, the most important of which is the Hôtel de Salm, now the Palace of the Legion of Honour. Exterior and interior views are given. The photographic views are of great delicacy and crispness, showing minute details of ornamentation and furnishing, and should be valuable to students of the French work of the late eighteenth and early nineteenth centuries. The harmony between the structure of these houses and their furnishing is noticeably more complete than in English work of the same, perhaps of any, date.

H. M. F.

SPECIFICATIONS, with which is incorporated Municipal Engineers' Specification. For Architects, Surveyors, Engineers, and for all interested in Building. Edited by Frederick Chatterton, F.R.I.B.A. No. 23. 1921. Fo. Lond. 10s. 6d. [Technical Journals, Ltd.]

The following books were referred to the Science Standing Committee and have been purchased on their recommendation:—

THE STABILITY OF ARCHES. With 5 folding plates and 58 diagrams. By Ernest H. Sprague. A.M.Inst.C.E. (The Broadway Series of Engineering Handbooks, Vol. 29.) Sm. 8o. Lond. 1916. 5s. net. [Scott, Greenwood and Son.]

THE ELEMENTS OF GRAPHIC STATICS: A Text-Book for Students, Engineers and Architects; with worked examples and 163 illustrations. By Ernest H. Sprague. A.M.Inst.C.E. (The Broadway Series of Engineering Handbooks, Vol. 26.) Sm. 8o. Lond. 1917. 5s. net. [Scott, Greenwood and Son.]

THE STRENGTH OF STRUCTURAL ELEMENTS: A Text-Book for Students, Engineers and Architects; with Examples, 5 plates, and 112 illustrations. By Ernest H. Sprague. A.M.Inst.C.E. (The Broadway Series of Engineering Handbooks, Vol. 27.) Sm. 8o. Lond. 1917. 5s. net. [Scott, Greenwood and Son.]

LIME.

Acknowledgments are tendered to *Housing*, the organ of the Ministry of Health, for the subjoined interesting and informative article on Lime, which appeared over the initials "H. O. W." in a recent issue.

During the present shortage of Portland cement the use of lime will become quite common again, even in London. There is no great hardship in this situation; it must be remembered that Portland cement is only about half-a-century old. Portland cement has, in the past, been so cheap and so convenient that it has not been unreasonable to use it indiscriminately, almost to the exclusion of lime. Its use, however, has tended rather to discourage true architecture; Portland cement, like charity, covers a multitude of sins. Perhaps it will clear the ground, if the abrupt statement is made at once that everything in normal architecture, and nearly everything in civil engineering, can be done without the use of Portland cement.

One immediate consequence of the increased use of lime will be a shortage also of this material. Many of

the old lime-kilns have been closed down, and it is possible that labour difficulties will delay the full working of the others. In these circumstances it is well to remember that lime-burning, from chalk or lime-stone, hard or soft, is no secret or complicated process; wherever there is limestone and fuel good lime can be burnt after a few preliminary experiments. This statement applies even where the limestone is a magnesium lime-stone. But dealing with the more ordinary case of ordinary limestone, good lime can be burnt with such a rough arrangement as screened cinders from railway ash-pits, mixed with broken lime-stone, placed and burnt in saucer-shaped depressions made in the ground. The process of lime-burning is such that it is almost impossible to make bad lime; no matter what errors are made, slaking to a flour and screening will neutralise them. Unburnt residue does not slake; and over-burning with improvised arrangements is impossible.

Where it is possible to get together a few of the old lime-burners it is not only unnecessary, but useless, to try experimental kilns; but, in the absence of such men, a kiln of the construction detailed below should give satisfactory results. It is one of a type (non-continuous) used in India. The coal used in this one was not very good (containing about 25 per cent. of ash); with better coal the layers of fuel could be thinner. The kiln is circular; walls 7 feet 3 inches high above ground level, and 2 feet 1 inch thick; all bricks laid in mud mortar; the internal diameter of the kiln is 12 feet 6 inches; the inside is plastered with mud 1 inch thick. In this case the foundations were taken only 12 inches below ground level; this depth would necessarily vary with the situation and soil. For loading a doorway is left temporarily in the wall. This is closed upwards as the building proceeds. Two small fuel doors, 12 inches by 12 inches, are left in the walls, and one vertical slit, 8 feet 3 inches by 8 inches. The kiln is loaded as follows:—

1st course	2 layers of firewood.
2nd ..	4 inches of coal.
3rd ..	12 inches of lime-stone (or chalk) blocks.
4th ..	4 inches of coal.
5th ..	12 inches of broken lime-stone.
6th ..	3 inches of coal.
7th ..	9 inches of small broken limestone.
8th ..	3 inches of coal.
9th ..	9 inches of small broken limestone,

and so on to the top. Over all there is a 2-inch course of earth and rubbish. The top is then plastered with mud. The time taken to use the kiln is:—two days loading, eight days burning, five days cooling, two days unloading. The total charge is about 650 cubic feet of stone and 200 cubic feet of coal. The outturn would be about 650 cubic feet of unslaked lime; this would slake down to about 1,200 cubic feet of slaked lime, and 100 cubic feet of unburnt residue and rubbish. The outturn of slaked lime would, of course, vary in weight and volume with the limestone; the ratio in volume of quick lime to slaked lime varying within wide limits.

Without going into chemical details, it may be stated shortly that lime can be efficiently used in one or other of two ways: first, with a good, clean, coarse sand, the mixing being ordinarily thorough; second, and better, steam-ground in an edge-runner mill with broken bricks, ashes (not cinders), ground slag, or other puzzolanic material instead of sand. The setting of the first may be called atmospheric; the setting of the second depends on an intimate mixture of lime and silica; quite remarkable

results are obtained by it. Clean sand may be added towards the end of the grinding.

In either method it is most important that the lime be first thoroughly slaked with water; and, to avoid unslaking, this should be done as soon after burning as possible. Lime can be slaked to a flour, screened and stored in barrels or sacks; or it can be slaked to a putty and stored wet. Kept in pits, with an extra inch of water on top as a protection, it will keep well for months, improving all the time.

The manufacture of hydraulic limes is more difficult; more especially as some limestones are so rich in clay that the resulting lime will not slake at all, in the ordinary sense, it being necessary to grind the burnt stone and generally to treat it almost as a cement.

A good hydraulic lime, such as the well-known "Blue Lias," is quite comparable with Portland cement, especially if a puzzolanic material is used instead of sand, or with sand, in the mortar.

. Communications from members and others interested in this subject are invited in the JOURNAL—information, for instance, as to the making or burning of lime in our country districts. —ED.

POSSIBILITIES IN BRICKWORK.

By NATHANIEL LLOYD, O.B.E.

Synopsis of a Paper read before the Northern Architectural Association, Newcastle-on-Tyne, 22nd February 1921

Brick has been defined as "a factitious building stone, made from the silicates of alumina and hardened by heat," but in plain English Brick is burned clay. There are three ways of burning: In the sun, in kilns, and in built up masses by fuel mixed with the clay of which the bricks are formed. The last method is largely used in this country, and little, if at all, on the Continent. The Egyptians made their bricks of clay mixed with straw and baked in the sun. This answered in Egypt and countries where there was little or no rain. In the second century Agis, besieging Martinea, turned the course of the river against the walls of that town and dissolved them "because they were made of crude brick," which, as the ancient historian says, "truly is safer against the shock of military engines than either burnt brick or stone, for these get broken." We may gather from this what progress the science of fortification had made so long as 1800 years ago.

The earliest mention we have of bricks is in Genesis xi, 3, say upwards of 4,000 years ago, when the Tower of Babel was projected, and we read—"Let us make bricks and burn them thoroughly. And they had bricks for stone, slime had they for mortar." Slime was bitumen. In 2 Samuel, xii, 31, we read "David made the children of Ammon to pass through the brick-kiln." That would be 3,000 years ago.

Roman bricks were long and thin, were made in the same way as and resembled our paving tiles. In the South wall of the chancel of St. Martin's Church, Canterbury, I have measured a number of these Roman tile-bricks up to 22 inches in length, varying in thickness from 1 inch to 1½ inch and laid with very thick joints, four courses rising 14½ inches.

Most Italian buildings are built of brick (the Florentine brick measures about 12 inches by 6 inches by 1½ inches) overlaid with marble ½ inch to 1 inch thick. In Northern

Italy terra cotta ornaments are used architecturally, but these are not to be confused with bricks.

The Romans introduced their method of brickmaking into this country, but, after they left, the art appears to have died out and we do not find bricks again until mediæval times. The earliest of these are stated to be those at Little Wenham Hall, of the thirteenth century. During the fourteenth, fifteenth and sixteenth centuries brickmaking in this country was popularised and influenced by refugees from the Low Countries and France, who settled here and not only re-introduced the art, but made a strong impression upon local architecture. The Low Countries are the home of modern brickwork and you will recognize their influence in many of the slides I shall show you.

I cannot now enter into the complexities of sizes of bricks, which have varied from Egyptian bricks measuring $16\frac{1}{2}$ inches by $8\frac{1}{2}$ inches by $5\frac{1}{2}$ inches, equal to a cube of 771 inches, to tiny Dutch bricks measuring 5 inches by $2\frac{1}{2}$ inches by $1\frac{1}{4}$ inches, or equal to a cube of 16 inches. Say relative proportions of 48 to 1.

Now my object in coming here to-night is to show you a number of ways in which one may use bricks, and I propose to commence with examples of simple projections, and to pass from them gradually to more elaborate treatment in mouldings and ornament. I hesitate to use the word ornament because it is a discredited word. In almost any town one sees buildings exhibiting the *misuse* of ornament. Some years ago, large quantities of moulded brick and terra cotta were produced by manufacturers and stocked by builders' merchants for incorporation by builders as stringings, copings, cornices, finials and panels. I believe the free use of this rubbish had the effect of prejudicing the use of the right kind of brickwork, so that it went out of fashion. I should rejoice to see a revival of the right use of brick mouldings, &c.

May I suggest the importance of avoiding excessive projections, of using mouldings as sparingly as if stone were the medium, and the exercise of great caution in employing ornamental details. I hesitate to say which of these three matters is the most important but, perhaps, too great or insufficient projections are the commonest stumbling-block. In ordinary three-storey buildings one finds examples where it is right to provide 4 inch projections to pilasters, but many more need only 2 inches. Raised panels may be raised 2 inches, but more frequently one is drifting to blocks at quoins seldom more than 1 inch, apron pieces 1 inch or less, but all depending upon the scale of the building. $1\frac{1}{2}$ inch projection each course in corbelling is about the limit, and often much less will be necessary, as I pointed out when speaking of the sailing courses of chimney caps.

The 50 slides illustrating this lecture include examples of simple and moulded projections, bonds, copings, pediments, various stages of brick-cutting, cornices, doorways, complete orders in brick, steps, chimneys, plaster on brick mouldings, gauged work, rubbed work, windows, fireplaces, tracery, and brick carving. By means of these I have endeavoured to show some of the ways in which many ways in which brick can be used. Of colour, I cannot give examples, but may remind you what a wealth of variety is available. You may recollect that last year I spoke of the importance of choosing bricks having texture, and suggested that, as bricklayers are in the habit of laying the smoothest side of each brick outwards, they might as easily expose that having the best texture. There would be no more delay in doing one rather than the other.

At the present time, when bricklayers are limiting their

output to some 350 bricks daily, it is found here and there that concrete blocks (made and handled largely by unskilled labour) have slightly reduced building costs. Bricklayers might easily lay four times the number of bricks they now lay daily, when brick would once more be found the cheapest of all building materials, and we should hear no more of concrete blocks.

I maintain, not merely that there is no building material that can compete with brick, but that there is none that can approach it. Its components are obtainable everywhere; it is warm: it is light: it has texture; it has a greater variety of colour than any other material: it weathers for centuries, improving meantime: it can be moulded, rubbed, cut and carved: finally it responds to and rewards a thousandfold the care and forethought of the user, if he be sufficiently an artist to appreciate its wonderful qualities.

The President, Mr. C. S. ERRINGTON, in calling upon Mr. W. T. JONES, F.S.A., Durham, to propose a vote of thanks to Mr. Lloyd, referred to the fact that the popular local view of brick was that it was a cheap material and was only to be used when stone could not be afforded. He referred to the desirability of enlightening public opinion on this, and spoke of the beautiful effects which can be got from properly selected brickwork. He thought local bricks were of a bad quality from the artistic point of view and that they were too thick, being often about $3\frac{1}{2}$ inches. The R.I.B.A. standard of bricks should be adhered to.

Mr. JONES, in moving the vote of thanks to Mr. Lloyd, agreed that local bricks were bad. He thought they were too hard and too brittle to cut, and had found by experience that they would not stand frost well, particularly on gable copings. He thought it was undesirable to import bricks from other districts as they did not harmonize with the colour of the locality.

Mr. G. T. BROWN seconded the vote of thanks, and spoke of the good work which Mr. Lloyd was doing in drawing the attention of architects and the public generally to the small points in such things as brickwork and design, as in the last lecture, which made all the difference between satisfactory and unsatisfactory artistic results. He also emphasized the advantages that are to be obtained from the combined use of tiles with brickwork to provide the fillers necessary in arranging simple mouldings.

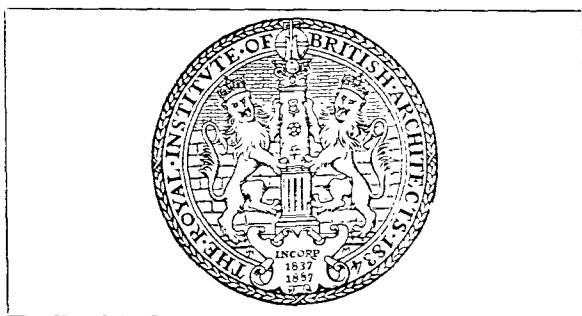
In reply, Mr. Lloyd thanked the Association for their kind acceptance of his Paper and regretted that the term "Bricks and Mortar" had almost become an expression of contempt. He referred to the very great importance of little things which in the aggregate made big things, and the fact that it was *how* materials were used that should be regarded as much more important than *what* materials were available.

Preserving an English Village.

Speaking on "The Future of the National Trust" at University College last week, Mr. S. H. HAMOR, the Secretary, said a suggestion had been made that the National Trust should become the owner of a typical old English village, and preserve it so that future generations might see the charm of English rural life as it had existed for centuries. Another useful thing would be the publication of a series of small books dealing with the properties under the Trust's care, viewed from their various aspects—architectural, historical and scientific. A further development might be the preparation of a schedule of all places worthy of preservation.

Books Received.

Housing Problems in America: Proceedings of the 8th National Conference of Housing, Bridgeport, December, 1920. So. New York: National Housing Association, 105 East 22nd Street, New York City.
Victoria and Albert Museum. Review of the Principal Acquisitions during the year 1918. Illustrated. 8vo. 40s. 1920. 5s. 6d. net. Published under the authority of His Majesty's Stationery Office.



9 CONDUIT STREET, REGENT STREET, W., 5th Mar 1921.

CHRONICLE.

The Royal Gold Medal 1921.

At the Special General Meeting of the 28th February Sir Edwin Lutyens, R.A., was elected by acclamation Royal Gold Medallist for the current year.

Hon. Corresponding Members.

At the election of Members last Monday the President, in moving the election of M. Albert Louvet as Hon. Corresponding Member, announced that the Council had decided that from henceforth the existing number of Hon. Corresponding Members should not be exceeded, except in the case of the United States, where the number would be increased from ten to twelve, and Belgium, where it would be increased from three to four. Otherwise elections to this class would only be made in order to fill vacancies arising from death.

Proposed Changes in the Charter and By-laws.

As will be seen from the Minutes of the Business Meeting held last Monday the proposals brought forward for the alteration of the By-laws respecting Hon. Associates, the curtailment of the period qualifying for Retired Fellowship, and the creation of a non-professional class to be called "Subscribers," received the assent of the General Body. The President in moving the Resolution said that in view of the probability of much more extensive alterations to the Charter and By-laws which might result from the labours of the Unification Committee now sitting, the Institute would not be involved in any separate expenditure for the present proposals. If carried they would be taken as the opinion of the Institute and would be incorporated with other alterations to be made in the constitution later on.

The new class of "Subscribers" was briefly discussed at the Meeting.

Mr. D. B. NIVEN [F.] thought the subscription too low, and moved as an amendment that the annual subscription be Two Guineas. He recalled that some sixty years ago the Institute had a class of members called Contributing Visitors who paid Two Guineas per annum. This class became merged into the Hon. Associateship, and hence arose the anomaly of these honorary members paying a subscription.

Mr. H. A. WELCH [A.] seconded the amendment, and asked why the new class should not be allowed to indicate their connection with the Institute? The benefit to the

Institute and to Architecture would be greater if their association with the Institute could be signified in some way.

The President said he thought it would be a dangerous thing to allow any authorised affix which would give the impression that "Subscribers" were members of the Institute in the ordinary sense. It was difficult enough already to separate the lay from the professional members.

Mr. SYDNEY PERKS, F.S.A. [F.], said that the point raised by Mr. Niven had been considered by the Finance Committee. Naturally, they wanted to get as much money as possible. But they thought they would get more money by making the subscription one guinea, as they would get probably three times the number of subscribers. Their idea was also to spread the influence of the Institute. These people would be entirely non-professional. They would be free to come to the lectures and to use the Library. Ladies would be eligible; and they hoped to get a large number of influential people—Members of Parliament and others—who would have the interests of the Institute at heart. Subscribers ought to be regarded as non-professional and non-associate, their connection with the Institute carrying no label at all. He thought they would do better to make the subscription a guinea.

The President agreed with Mr. Perks. It would be better, he said, to have two members at a guinea each than one member at two guineas. The lower the subscription the more likely was this class of membership to be taken up. A man might not mind paying one guinea, but would think two guineas too much. He deprecated the use of any authorised affix: it must be purely a lay membership.

Mr. SEPTIMUS WARWICK [F.] hoped that care would be taken not to cheapen these admissions. They did not want too many in under this head.

The President, answering Mr. W. E. VERNON CROMPTON [F.], said that "Subscribers" would have to come up for election. Machinery would be devised for the purpose, and he thought that the names should be published in the JOURNAL.

Mr. Niven's amendment having been put to the meeting and lost, the original motion was then put and carried *unanimously*.

Mr. Jay Hambidge on Dynamic Symmetry in Ancient Architecture.

Mr. Jay Hambidge's lecture, "Further Evidence for Dynamic Symmetry in Ancient Architecture," delivered at the Joint Meeting of the Royal Institute and the Society for the Promotion of Hellenic Studies in the rooms of the Institute on the 1st March, attracted a good attendance of members of both Bodies. Sir Charles Walston, Litt.D., Vice-President of the Hellenic Society, presided, and was supported by Mr. John Penoyre, C.B.E., for the Hellenic Society, and Mr. George Hubbard, F.S.A., for the Institute. The Paper, with illustrations and a report of the discussion, will appear later in the JOURNAL. Meanwhile Mr. Hambidge has kindly contributed the following notes of his lecture:—

With the Greeks of the Classic period it was customary to study arithmetic with the aid of simple geometrical diagrams. Plato, in the Theaitetos, supplies a lesson in this method of study wherein root rectangles are used. See *Schools of Hellas*, by Kenneth J. Freeman, pp. 159-160. If we use this method of arithmetical study, and the same diagrams, the result is dynamic symmetry as the writer has worked it out from the best examples of ancient Greek architecture and general craftsmanship, such as that supplied by surviving objects in bronze and pottery.

During the past year some of the most important of the Classic buildings in Greece have been remeasured and examined in detail for the purpose of determining precisely the methods used by the ancient master builders in fixing their proportions, or, as they termed it, symmetry. These buildings include the Parthenon at Athens, the temple of Apollo Epikurios at Bassae in Phigaleia (both by the Periclean architect Iktinos), the Zeus temple at Olympia, the temple at Sunion and the temple of Athena Aphaia at Aegina. It is the writer's belief that the results of this labour show conclusively that we have recovered the Classic Greek method of fixing building proportions.

An interesting situation is revealed by a comparison of the two buildings designed by Iktinos, the Parthenon at Athens and that of Apollo at Bassae. The symmetry of the Parthenon is characteristic of the building: it is subtle, refined and modified in many ways by the introduction of curvature. The building at Bassae is without curvature except that of the circular columns and their capitals. The Parthenon column has an extremely delicate entasis, while that at Bassae is perfectly straight. Of all examples of Greek design so far found to conform to dynamic symmetry that furnished by the Bassae temple is the simplest.

As was explained in lectures of last year, the highest type of symmetry is furnished by areas which are fixed by a diagonal to two square in relation to a side of one of the units.

If a side of one square equals 1, two sides equal 2.

And a diagonal of the two units equals 2.23606 plus, or root 5.

The mystery of Classic Greek proportion will, therefore, be found in an area the end of which is 1, and the side .23606 plus, or 1 by 2.3606.

Iktinos seems to have thoroughly understood this, as the nave, the column centering and the placing of the statue of Athena are arranged in strict accord with the proportions inherent in this peculiar figure. The proportions of the Parthenon unfold from the centre of the statue of the goddess like those of a flower.

The proportions of the Bassae temple are another evolution of this basic form of 2.36.

The overall plan at Bassae is 2.236 plus .236 or 2.472, *i.e.*, four whirling square rectangles or .618 multiplied by 4.

The stylobate proportion is 2.618 or 1.618 plus 1.

The naos proportion is 3.236 or 1.618 multiplied by 2.

The cella proportion is 2.472 or a similar figure to the whole.

If we divide the length of the temple by 2.36 we obtain the length of the cella. If we divide the width of the temple by 2.36 we obtain the width of the cella.

The Zeus temple at Olympia and the temples at Aegina and Sunion show variations of the same basic ideas of proportion found in the Parthenon and the temple at Bassae. It should be remembered that the proportions of all details in these buildings conform strictly to their general proportions.

Mr. P. W. HUBBARD, M.A. Cantab. [A.] (son of Mr. George Hubbard, F.S.A. [F.]), who made an interesting contribution to the discussion on Mr. Hambidge's Paper, probably expresses in the following notes the feeling of most of those who were present at the lecture:—

Since Mr. Hambidge read his Paper before the R.I.B.A. in 1920 considerable diversity of opinion has been expressed, so his visit last Tuesday was especially welcome to those who desired further evidence of his theory before obtaining any measure of conviction on such a complex subject as symmetry in Classic Greek design.

If Mr. Hambidge's views failed to convince his audience, he may rest assured that the fault lay with his hearers, who, perhaps, failed to grasp the true meaning and application of the somewhat prolonged string of figures with which they were confronted.

There can, however, be no two opinions about the very comprehensive investigations, penetrating to the smallest details, which Mr. Hambidge has contributed to our sparse knowledge of the changes which came over Greek design about the fifth century B.C.

By his careful study and accurate measurements of numerous works of the highest artistic value he has done much to promote the understanding of that which was previously inexplicable.

During the discussion which took place subsequent to the lecture we obtained an insight into Mr. Hambidge's methods of ascertaining the symmetry of Greek vases. At the same time he discoursed freely and with evident knowledge on such obscure subjects as the mathematical thought, not only of the Greeks, but also of the Egyptians and Hindoos. We cannot but feel that the last word has not been spoken, and we trust that a lucid exposition of Mr. Hambidge's theories in book form may soon add to our literature of architectural history. P. W. HUBBARD [A.].

Major Warren's Paper on Mesopotamia.

Record has to be made of the meeting held on the 2nd inst. for the Paper by Major Warren [F.] describing his recent tour in Mesopotamia as Principal Architect for that country under the Imperial War Graves Commission. The meeting, which was very fully attended, was presided over by Mr. Walter Cave, Vice-President. The Paper will appear in the JOURNAL in due course but, unhappily, with only a very few of the remarkable series of illustrations shown by Major Warren at the meeting. His narrative, which was delivered without reference to his MS., was accompanied by a rapid succession of slides, bringing before the audience a vast number of the buildings and places he had jotted down as noteworthy in the course of his journeys. These illustrations were supplemented by a numerous collection of water-colour drawings made by Mr. Lionel Muirhead during a long residence in Mesopotamia, which were kindly lent for the occasion and were hung round the room. Mr. Muirhead's drawings supplied the colour and the atmosphere that the photographs lacked

but which are essential to a right appreciation of the places and objects depicted, and later in the evening the gifted artist himself made a tour of the room explaining the drawings and relating incidents connected with them.

A further interesting feature of the meeting was a description of the construction of the Hindié Barrage and the works of irrigation in Mesopotamia by Mr. R. I. Money, C.E., who was concerned in the work. The Barrage, which is about a day's journey to the south of Baghdad, was just completed when Turkey entered the war, and orders for its destruction were immediately issued by the Turkish authorities. The Arabs, however, realising what irrigation meant to the arid, barren country, resisted with all the force they could muster, and the works were saved. Mr. Money stated that, thanks to the Hindié Barrage, the Mesopotamia army was fed by the country itself at a time when our food-ships were being sunk by the German submarines.

It was well after half-past ten before the proceedings closed with a vote of thanks to Major Warren and his collaborators, proposed by Sir G. K. Scott-Moncrieff, K.C.B., K.C.M.G., and Sir W. Goscombe John, R.A. [*Hon. A.*].

Major Warren, who, it may be mentioned, is a brother of Sir Herbert Warren, late Vice-Chancellor of the University of Oxford, had an unusually varied experience during the war. He organised and commanded the great Military Hospital at Corfu, which did so much to rehabilitate the Serbian Army after its terrible retreat across the mountains of Albania to the Adriatic. He is an Honorary Major in the Royal Serbian Army and received from the King of Serbia the Order of Saint Sava, and the Serbian Red Cross. In a Paper read before the Institute in June 1919, published in the JOURNAL in the following November, Major Warren gives an account of his war experiences in France and the Balkans.

British School at Rome : The Faculty of Architecture.

At the meeting of the Royal Commission for the Exhibition of 1851, which was held at the offices in Lower Gardens, Exhibition Road, the Prince of Wales was installed as President of the Commission in succession to Prince Arthur of Connaught. The office was held by the King and King Edward when Prince of Wales and by the Prince Consort. One of the most important undertakings of the Royal Commission is the British School at Rome, and the services it has rendered to contemporary art are well known. The Prince of Wales presided later at the meeting of the Council of the School, when the Executive Committee was elected as follows :—Lord Esher (Chairman), Lord Plymouth, Lord Harcourt, Sir Rennell Rodd, Sir Fredere Kenvon, Mr. George Clausen, Mr. J. S. Sargent, Sir Thomas Brock, Sir George Frampton, Sir Aston Webb, Sir R. Blomfield, Sir Frank Short, Mr. D. Y. Cameron, Professor J. S. Reid, Mr. Arthur Smith, Mr. John Penoyre.

On the Faculty of Architecture were elected Sir Reginald Blomfield, R.A., Litt D. [*F.*], Sir John Burnet, R.S.A., LL.D. [*F.*], Mr. H. Chalton Bradshaw [*L.*], Rome Scholar in Architecture, Mr. W. Curtis Green [*F.*], Sir Edwin Lutyens, R.A. [*F.*], Mr. Ernest Newton, C.B.E., R.A. [*F.*], Professor C. H. Reilly, O.B.E. [*F.*], Mr. Gilbert Scott, A.R.A. [*F.*], Mr. John W. Simpson, President R.I.B.A., and Sir Aston Webb, K.C.V.O., C.B., P.R.A. [*F.*].

Elections were also made to the Faculty of Archaeology, History and Letters; the Faculty of Painting; the Faculty of Sculpture, and the Faculty of Engraving.

Death of M. de Lasteyrie [*Hon. Cor. M.*].

Members will regret to hear of the death on the 29th January of M. le Comte Robert de Lasteyrie, Membre de l'Institut de France, and an Honorary Corresponding Member R.I.B.A. M. de Lasteyrie succeeded Quicherat in 1882 as Professeur d'archéologie du moyen-âge à l'Ecole des Chartes, and he held this position until his resignation in 1911, when he became Professeur honoraire. His most important work, *L'architecture religieuse en France à l'époque romaine*, was published in 1912.

Office of Works : Building without Contract.

A letter signed "Caution" in *The Times* of the 2nd inst. says :—

The Estimates published on February 21st provide a sum of £549,000 for the Office of Works, including £63,000 in respect of additional staff, for the building of houses, for local authorities. Such a figure as this in connection with housing may not appear to call for much comment, but as a matter of fact it is merely the index to an enormous sum of money that is proposed to be spent without either building contracts or definite estimates. The method of building to be adopted is that of the direct employment of labour by the Office of Works: the only estimate offered is the same in all cases—An A house will cost about £850, a B house about £950, and a C house about £1,050. These are the prices that the Ministry of Health regards as its standard prices for the various types, and it is a rare thing for them to be justified by the actual result. In the case of work carried out by direct labour the possibility is a remote one: so much so, that the Ministry steadily sets its face against this method in all cases where the Office of Works is not operating, and states emphatically that if adopted it must be subject to a definite limit of cost represented by the lowest builder's tender obtainable, less the builder's profit. The Ministry is afraid of it as a costly and unsatisfactory way of building. The Office of Works is proceeding to spend many millions in this way, and the taxpayer has to meet the bill, whatever it may be.

If it were impossible to secure contracts for house-building there might be some reason for the direct employment of labour, but builders are now quite willing to give definite tenders. Further, the Office of Works is proposing to set up a Works Department in order to be independent of contractors, again at the cost of the taxpayer, and anyone who remembers the history of the L.C.C. Works Department will understand the need for resisting this new opportunity for wasteful expenditure. The simple fact of the matter is that the Office of Works increased its staff from 655 in 1913 to 1,543 in 1920, and is hunting about in all directions for

employment in order to keep this staff at work: the Hyde Park Corner Memorial, the effort to secure the maintenance of all ecclesiastical buildings and property, Sir Alfred Mond's explorations in Palestine, are all evidences of the Department's eagerness to justify the retention of a wartime staff that ought properly to be reduced at once to a peacetime footing. The sooner this is done, the sooner will benefit accrue to the taxpayer.

In the housing schemes the local authorities are to be allowed no control of the arrangements and no supervision of the accounts. The procedure is unbusiness-like, and full of danger to the public purse.

Building Research.

In submitting to the House of Commons last week a supplementary estimate of £485,000 for the Office of Works, Sir Alfred Mond (First Commissioner of Works) said one item related to a small building fitted up for technical research work of a very interesting and important character in respect of building materials, a matter as to which much more information was required. He was afraid some of the houses now being put up would fall to pieces, and that could have been obviated if more research work with regard to materials had been carried out before. In the ensuing discussion, Sir D. Maclean said he objected to spending public money on research into the quality of cement, bricks, and other building materials—what the country wanted was ordinary, reasonable, habitable houses, and the information already in existence was sufficient for that purpose. In reply to a question, Sir Alfred Mond said he was not aware that a staff at the Ministry of Health was engaged on similar work. The amount asked for was small, and the money would not be spent uselessly. Sir Frederick Banbury said he understood Sir Alfred Mond to say that without further research houses might fall to pieces—he did not know whether houses built by the Office of Works or the Ministry of Health were referred to, but in the past houses had been built which lasted not only for ten years but for centuries. In reply to a question as to whether separate research departments in the Office of Works and in the Ministry of Health were necessary, Sir Alfred Mond said the Office of Works research department was principally concerned with testing materials bought and concrete, and the Ministry of Health research department could not possibly do its work in conjunction with the Office of Works. The vote was carried by a majority of ten.

The American Institute and Professional Problems.

In the *Proceedings of the Annual Convention of the Iowa Chapter of the American Institute of Architects, October, 1920*, appears an interesting contribution from Mr. Charles A. Dieman, consisting of his report of the preceding Annual Convention of the American Institute at Washington, which he attended as the Iowa delegate. The subjects discussed at the Convention embraced such matters as the education of the public in the fine arts, architecture in particular; the training of those who aspire to become architects; registration; the relation of the architect to the draughtsman; co-operation between the architectural profession and the building trades, etc.—such the same problems, it will be seen, as those which confront the profession in this country. Mr. Dieman says:—

I have always contended that education has a great bearing on the attainments of our profession, but I had not realised the heights it might reach and the breadths it

might touch. This topic was ably divided by the committee in charge into three sub-headings—Public Appreciation of the Arts, General Education, and Architectural Education.

Mr. George C. Nimmons, of Chicago, handled the first heading, Public Appreciation of the Arts. He laid stress on the fact that education along the line of arts, especially our own, is lacking in schools other than architectural colleges—that our leading institutions turn out students without information on the subject, with a result of lack of appreciation. . . . The question of establishing a real branch of study in this subject has been recently discussed at a convention composed of 240 of our leading colleges. The suggestion was well received and it aroused enthusiasm, but it followed that the institution of a new branch would mean endowments, qualified instructors, and added expense. The final decision of the Institute Committee was on the preparation of a book serving as a text book, but written in such manner that it would be interesting to the public in general. There being no such book in existence, necessary steps were taken for the writing of one dealing with, and entitled, *The Significance of the Fine Arts*, and their relation to human life—giving a brief account of the principal periods of architectural history, presented so as to connect them with the political, social, and religious life of the people; presenting modern architecture with its new methods, its theories and problems of design and methods; the customs of the practice of the art, with a chapter on industrial art; also dealing with the fine arts of Painting, Sculpture, and Music. The aim of the book, as set forth by the Committee, is first, the advantages gained by a study sufficient to appreciate the fine arts; second, the practical usefulness of the understanding of the fine arts as applied to the individual in every-day life; third, the satisfaction and interesting experiences added to the life of those who have sufficient understanding of the fine arts to appreciate them. Beginning with the simple study of the book, it might lead to lectures, illustrations by field work, drawings, etc., to develop the knowledge of the arts. It was suggested that the local chapters could aid the movement to a great extent by creating a committee on education, such committee to get in touch with the Institute Committee.

The Institute should know more about the general principles, methods, and standards of education all over the country before it could hope to create much of an impression on the general education. An effort should be made to introduce instruction in fine arts as early as possible in the grade schools. It is desirable that one member of every school board should be an architect. Local reports of conditions would aid materially. The creation and co-operation of Chapters' Committees on Education, and shaping the opinion of architects on educational matters that the sentiment might serve as a guide to teachers, should put matters on such a basis that the architect and the teacher might co-operate.

Architecture depends upon a man's equipment, and not on how he gets that equipment. The school of architecture is the nursery of the imagination. Bringing the question down to the practical basis, a practising architect would be the best teacher in architectural design. Those who intend to act as instructors in this subject should not drop their practice. The architectural practitioner should take advantage of every opportunity of perfecting himself in his work. The architectural course should be arranged so as to sift out as early as possible all who are not adapted to the work; to give, in a reasonable period of time, the instruction that is the most practical for the average architect; and to allow the student's mind, through contact with the best minds available, to develop in imagination.

Inasmuch as thoroughness in all courses taught is of the first importance, the American Institute of Architects

recommends that if a school can give a course in architecture of only four years to students who have had no other preparation than that required for admission to college, such course should cover the fundamentals thoroughly, leaving advanced work to a fifth or graduate year; but that for such students a five year course is to be preferred.

Pungent points which the discussion evolved:—The endorsement of modern appliances as aids in teaching, and the study of notable examples of American architecture; three years of practical experience is a necessary pre-requisite for registration, and that a candidate who has a degree from an architectural college should not be exempted from the State examination; the importance of covering the fundamentals thoroughly if only a four-year course be given, leaving advanced work for post-graduate work; the combination and co-ordination of theory and practice.

Suggested subjects to be included in a possible five year course were:—Modelling; greater elaboration of design and construction; the business of architecture—dealing with men, women, politicians, and all the business phases; the application of architectural planning to business and industrial methods; teaching the student to think architecturally; proper condensation—cutting out unnecessary topics.

The college man is not always the best man in an office, and, indeed, is often the worst man. A man should be required to get so many points before given a degree, thereby raising the standard; also enabling the born architect to get a degree more quickly than the others. Study of building operations during the course, as well as the designing of the structure, exceedingly practical. . . .

The subject of co-operation in general between the Institute and the Engineers was taken up in connection with registration. Desire has been shown on the part of the Institute to bring about co-operation between the two professions. It was suggested that the architects and engineers should co-operate in formulating basic laws involving registration of the architects and engineers, although joint registration is inadvisable. There would be difficulty, however, in separating the two professions, and passing distinct laws governing the two bodies. But there must be co-operation, as the safety, adequacy, and durability of any structure depends upon the united services of the architect and the engineer, regardless of who is in charge. . . .

The relation of the architect to the draughtsman was given ample discussion. The consensus of opinion was that the architect owed to the draughtsman, and to himself, the broadening of the draughtsman's field of labour. Architectural societies should co-operate with engineering societies that a closer relationship be established between architects and draughtsmen; that the architects should encourage the draughtsmen to join, or form, organisations which have educational value along their line of work, that the architects should take moral and financial interest in such organisations; that the employers should urge the draughtsmen to prepare for examination to procure a licence in such States where there are registration laws; that the employee should be shown that his value to the architect lies in proportion to his skill and efficiency; that the employer should compensate the employee in proportion to his skill, based on current standards.

It was borne out that although the relation of the architect to the draughtsman is of vital importance, still architecture is something apart from some of the problems. The consensus of opinion seemed to be that the draughtsman should be prepared in college to deal with some of these matters. The problem of existence is gaining a prominent place, and the student, even before he takes up the profession, should be warned he has a hard pull ahead of him. It is not so hard for the man who is not dependent on his salary. He can give vent to his imagination, and leave the mercenary question for others to worry over. The architect should be in closer humanising

touch with the student. The general indication is that while the draughtsman loves architecture, he dislikes his experience as a draughtsman. One remedy would be to give the draughtsman his chance on the construction of a building, as well as on the planning. It would do a great deal toward promoting fellowship. Architects should realise that they can learn a good deal from the draughtsmen.

There can be no real co-operation between architect and draughtsman until all branches of the building line co-operate and study each other's problems, and all group toward the same end and idea. The unrest of the draughtsman comes from lack of understanding. It is the work of the architects to show the draughtsmen that architecture cannot be unionised. They should co-operate and organise their art so as to speak with one voice. Both have to lay aside prejudices. There must be humanising contact before they will co-operate freely.

The contractor's and the client's relation to the architect is so closely related to the attitude of the draughtsman and the architect that this phase also received considerable attention from the Convention. In this connection, Mr. Knickerbacker Boyd told some of his experiences with the men who do the actual work on the buildings that the architect plans. Being dissatisfied with the building conditions in Philadelphia, and not getting much support from the proper authorities, he finally asked, and received, permission to appear before the Council of Allied Building Trades. He told them, in substance, that it was time the architect and the trades should get into closer touch; that if they would not co-operate officially, to try to get in touch individually; that the time had come when the discussion of the wage scale and hours in the labour union should give way to the discussion of service; that they "owed it to themselves to consider taking more interest in their work, having greater knowledge of materials, improving the character of work done, and making it in every way as effective as possible." The culmination of this talk was interested inquiries from all the building trades, and a special meeting was held between an architectural committee and the bricklayers. This had such excellent results that Mr. Boyd suggested that Mr. W. J. Hagerty, representative of the Bricklayers' Union of Philadelphia and the Council of Allied Building Trades of Philadelphia, should tell of the things that had been done.

You have, of course, all heard of this departure which more than anything else showed the democratic trend of the Convention. Mr. Hagerty's talk made a deep impression and was received with enthusiasm. He began by making the statement that the craftsmen had always been afraid of the architects, but that after being with us for several days in our meetings and social affairs he had decided that we were every bit as democratic as the member of the trades' union who is trying to help his organisation solve some of its problems. He paid a fine tribute to the work of Mr. Boyd. When it was found by the trades unions that he, Mr. Boyd, was sincere in his remarks, made at the meeting referred to, they got busy, and the architects had their hands full. Investigation proved that 90 per cent. of the bricklayers who belonged to the union knew nothing about the reading of a plan, and it had been the general idea that the architects thought the more illiterate a man was the better workman he was. A campaign of education was instituted, with the aim of making every building trades craftsman in Philadelphia as good an architect as he can be made. He himself had undertaken the education of three boys, and they had proved to be three of the best men in Philadelphia, all superintendents for contractors. The building trades in Philadelphia have reached the conclusion that the only way to kill radicalism and socialism, Mr. Hagerty says, is to educate the workman. And his idea was that the Institute should be the guiding hand of all the building trades from the common labourer up. The lack of this guiding had caused the drifting, and the Institute should be the "father, as it were, over the building trades."

One means to this end of co-operation between all trades and professions connected with building is the establishing of schools in which every man gets specific instruction in his own craft, and a certain amount of education in citizenship. A suggestion was made that chapters should help in organising these schools in communities which do not have them.

A conference in which architects, engineers, and contractors were represented concluded that inasmuch as there is a great waste in the usual methods of estimating by several bidding on the same quantities and the duplication of quantities in the same building, this system could be condemned; that competitive bids should be based on a quantity survey, the cost of which should be borne by the owner, and that no charge should be made by the bidders on submitting proposals after this plan; but that the contractor is justified in asking for a fee for bidding, if such quantity survey of the plan and specification is not submitted by the owner. . . .

In the Convention, which had meant so much to all of us, we had gained new ideas, and we had learned new lessons in the idea of service by co-operation. We had met obstacles which we had done our best to overcome. We have still a long way to go—a way which best can be expressed as Irving K. Pond puts it in his *The Meaning of Architecture*. He says: "An old precept runs, 'Obstacles are God's best gifts to man.' That is but another way of saying that out of the struggle of life must come perfection of character, that out of the conflict of opposing forces must come beauty; else were we barbarians. Out of all the struggle of the race and the individual upward out of barbarism and childhood have come civilisation and the full fruition of manhood: out of chaos has come order: out of strain and stress has come beauty. To conserve that beauty, to interpret and express it, is the privilege and duty of the artist. To live in that beauty and make it part of his being is the privilege, as well as the duty, of every civilised man. This he may do by regulating the thoughts and acts of his daily life. The regulation of thought and act with the idea of making—not getting—the most out of life is called art. It goes down into and touches the seemingly most insignificant act and thought as well as the most important. Poetry, music, and the fine arts—painting, sculpture, and architecture—are its grandest expressions, and those who make a profession of these arts are called artists: but they are no more artists than are the men who listen to the voice of beauty and answer its call in the shaping of their lives."

THE EXAMINATIONS.

Students R.I.B.A.

The following candidates having passed satisfactorily through the architectural courses at the "recognised" schools indicated against their names, have been registered as "Students R.I.B.A." The asterisk (*) denotes students exempted from the Intermediate Examination under the Special War Concession to Probationers.

- *Adams: George Eric, Chez Nous, Knatesborough, Yorks.
- *Bowen: William Arthur Forrest, 46 Rigby Lane, Brighthelm, Bolton.
- Burnet: Frank Russell (Glasgow School of Architecture), "Tavita," Kilmacdon.
- Bateman: Robert Wallace (Victoria University, Manchester), 35 Acorn Street, Whitworth Park, Manchester, S.W.
- *Barber: Norman Arthur, Dyham House, Vicarage Avenue, Derby.
- Bennett: James Spalding (Edinburgh College of Art), 156 Broad Road, Edinburgh.
- Crombie: Alan (Glasgow School of Architecture), 55 Cecil Street, Glasgow, W.
- Edwards: Wilfred Bythell (Liverpool University), Victoria Villa, Flint, N. Wales.
- Gilder: Framroz Nowroji (Sir J. J. School of Art), 12th Lane, Khetwadi, Bombay.

- *Harman: Richard Strachan de Renzy, c/o C. Wood, Esq., 90 Hereford Street, Christchurch, N.Z.
- Hines: Edward George (University of London: School of Architecture), Stockwood Crescent, Luton.
- Levekus: Gertrude Wilhelmine Margaret (University of London: School of Architecture), 22 Gayton Road, Harrow-on-the-Hill.
- Milne: James (Glasgow School of Architecture), 39 Smith Street, Hillhead, Glasgow.
- *Stratford: Ernest Albert, Eton Villas, Elm Grove Road, Weybridge.
- *Turland: Harry Frank, 17 Adams Avenue, Northampton.
- Vadnerker: Vamanrao Vithalrao (Sir J. J. School of Art), 44 Hildrop Road, N.Z.
- *Whitworth: Robert, 265 Wykeham Road, Reading.
- Wigglesworth: Wilfred Pierce Duleton (Architectural Association), Battlefield Road, St. Albans.
- Young: Thomas Peach Weir (Glasgow School of Architecture), c/o P. McGregor Chalmers, Esq., 95 Bath Street, Glasgow.

Professional Announcements.

Mr. E. Godfrey Page [A.], having severed his connection with the Ministry of Health, has resumed practice at 11, Gray's Inn Place, W.C.

Mr. John A. Dempster [A.] has entered into partnership with Mr. P. C. Boddy, M.S.A., and the firm is now practising as Messrs. Boddy & Dempster, at 85, New Oxford Street, W.C.1.

Mr. Will J. B. Wright [Licentiate] has commenced practice at 93, Hope Street, Glasgow. Telephone: Central, 739.

Mr. Herbert Kenchington [A.], of 14, Great James Street, Bedford Row, W.C.1, is opening a branch office at 108, High Road, Wembley.

Mr. Charles W. Long [F.] has resumed his London practice at 36, Bloomsbury Square, W.C.1.

MINUTES. IX.

At a Special General Meeting held Monday, 28th February 1921, at 8 p.m.—Present: Mr. John W. Simpson, *President*, in the Chair. 31 Fellows (including 10 members of the Council), 10 Associates (including 1 member of the Council) and 1 Licentiate—the President announced the object of the Meeting, viz., to elect the Royal Gold Medallist for the current year.

On the motion of the President, seconded by Mr. Arthur Keen, Hon. Secretary, it was

RESOLVED, by acclamation, that subject to His Majesty's gracious sanction, the Royal Gold Medal for the promotion of Architecture be presented this year to Sir Edwin Landseer Lutyens, R.A. [F.], in recognition of the merit of his work as an architect. The Special General Meeting then terminated.

At the Ninth General Meeting (Business) of the Session 1920-21, held Monday, 28th February 1921, immediately following the Special General Meeting above recorded and similarly constituted the Minutes of the Meeting held 14th February, having been published in the JOURNAL, were taken as read and signed as correct.

The Hon. Secretary announced the decease of the following Members: Charles Lynam, F.S.A., of Stoke-on-Trent, elected Fellow in 1882, placed on List of Retired Fellows in 1916; Edmund Harold Sedding, of Plymouth, elected Fellow in 1901; and Robert Macfarlane Cameron, of Edinburgh, Licentiate:—It was RESOLVED, that the regrets of the Institute for the loss of these Members be recorded on the Minutes of the Meeting.

The following Members attending for the first time since their election were formally admitted by the President:—Lt.-Col. George Edward Holman and Henry Robert Goodsham, *Fellows*.

The following candidates were elected to membership by show of hands under Bye-law 10:—

AS FELLOW.

DEWHURST: JOHN CADWALLADER [A. 1895], Dublin.

AS ASSOCIATES (53).

- ALLDRIDGE: CHARLES DONALD [Special War Examination], Buntingford.
 BALMER: STANLEY [Special War Examination].
 BENNETT-BENJAMIN: HORACE [Special War Exam.].
 *BROWN: JOHN, Lieut.-Col., D.L., D.S.O. [S. 1900, Special War Exemption], Northampton.
 BOLSTRODE: STANLEY GODWIN [Special War Examination], Christchurch, Hants.
 BURKE: JOHN EDWARD [Special War Exam.], Dublin.
 BURLEIGH: HAROLD [Special War Exam.], Hastings.
 BURNETT: PERCY VIVIAN [Special War Examination].
 CLARKSON: GEORGE FLINT [Special War Examination].
 COLLINS: HENRY RICHARD [Special War Examination], Cambridge.
 COULDREY: WALTER NORMAN [Special War Examination], Paignton, Devon.
 DANGERFIELD: BERNARD, M.C. [Special War Exam.].
 DANGERFIELD: PAUL [Special War Examination].
 DAVIDSON: SAMUEL [Special War Exam.], Edinburgh.
 DAVIDSON: WM. ALEX. [Special War Exam.], Aberdeen.
 DIXON: PERCY SIDNEY [Special War Examination].
 EARNHAW: HAROLD HICKS [Special War Examination], Cheshire.
 FELTHAM: STANLEY CRATHERN [Special War Exam.].
 GEARY: FRANK GEORGE [Special War Examination].
 GORDON: ALEXANDER [Special War Examination], Bucksburn, Aberdeenshire.
 GRUMMANT: REGINAID THOMAS [Special War Exam.].
 HOLT: FELIX [Special War Examination], Liverpool.
 HORTH: FREDERICK JOHN [Special War Exam.], Hull.
 HOWARD: STANLEY BOOTHBY [Special War Exam.], Lpool.
 HUGHES: HENRY CASTREE [Special War Examination], Cambridge.
 JACKSON: BASIL HIPPISEY [Special War Examination].
 KAYE: STEWART [Special War Examination], Edinburgh.
 KEARNE: LESLIE HAMILTON [Special War Examination].
 KERR: ROBERT SIDNEY [Special War Examination].
 LUMB: JOSEPH HAYDN [Special War Exam.], York.
 MACPHERSON: DONALD [Special War Examination].
 MALLARD: FRANCIS ALLAN [Special War Examination].
 MANN: STEPHEN [Special War Exam.], Wigton.
 NIGHTINGALE: FREDERICK BAYLISS [Special War Exam.].
 PICKFORD: ASTON CHAPLES [Special War Examination].
 REID: ALEX. WM. DOUGLAS, B.A. [Special War Exam.].
 RICHARDSON: FRANK [Special War Exam.], Carnforth.
 RICKATSON: JOHN [Special War Examination], Hull.
 ROSS: LESLIE OWEN [Special War Examination].
 SANDERS: JOHN EDWARD [Special War Examination], Liverpool.
 *SHORT: ERNEST WILLIAM GEORGE, Lieut.-Col. [S. 1896, Special War Exemption].
 SILVER: EDWIN RUSSELL [Special War Examination].
 SMITH: JOSEPH SUMMERSGILL [Special War Examination], Sheffield.
 THOMAS: HUBERT ARTHUR [Special War Examination], Liverpool.
 WALKER: FREDERICK ARTHUR [Special War Exam.].
 *WEBSTER: FRANCIS POOLL [S. 1909, Special War Exemption], Manchester.
 WHITEBURN: ALGERNON STUART [Special War Exam.].
 WHITEBY: CHARLES [Special War Examination].
 WHITE-COOPER: RUPERT CHARLES [Special War Exam.].
 WILSON: HARRY ERNEST [Special War Examination].
 WOOD: WILLIAM WALTER [Special War Examination].
 WOODHOUSE: BRIAN WILLIAM [S. 1911, Special War Exemption], Heckmondwike.
 WORMUM: GEORGE GREY [Special War Examination].

AS HONORARY CORRESPONDING MEMBER.

LOUVET: ALBERT, President of the Société des Architectes Diplômés par le Gouvernement, Paris.

AS HONORARY ASSOCIATE.

PLEME: WILLIAM T., Editor of *The Builder*.

The President announced that the Council had decided that the existing number of Hon. Corresponding Members should not be increased, except in the case of the United States, where the number should be increased from 10 to 12, and Belgium, where it should be increased from 3 to 4; otherwise elections to that class would only be made to fill vacancies caused by death.

On the motion of the President, seconded by Mr. Arthur Keen, Hon. Secretary, it was

RESOLVED: That the following clause be added to the Regulations for Architectural Competitions—viz., "In the case of a competition for a Housing Scheme the Conditions shall be in accordance with the 'Model Conditions for Housing Competitions' as approved and issued by the Royal Institute of British Architects."

The President moved the adoption of the following proposals involving amendment of the Charter and By-laws:

- Honorary Association.*—Membership not to exceed sixty; entrance fee and subscription to be abolished; privilege of voting in the election of the Council and Standing Committees to be abolished.
- Retired Fellowship.*—Qualifying period of membership to be reduced to 25 years.
- Subscribers.*—A new class to be created, under the name of "Subscribers," who would be non-professional, have no privileges of membership, and no power to use any affix indicating membership of the R.I.B.A. Subscription to be one guinea per annum. They would be entitled to use the Library, to attend Ordinary General Meetings, and to receive a copy of the Annual Report.

The Hon. Secretary having seconded the resolution, Mr. D. B. Niven [F.] moved as an amendment that the annual subscription of the proposed class of "Subscribers" should be two guineas.

The amendment having been seconded by Mr. H. A. Welch [A.] was put to the vote and on a show of hands was declared lost.

The original motion was then put to the Meeting and carried *per. cap.*

The President stated that the alterations proposed in the resolution would be incorporated with other more extensive alterations in the Charter and By-Laws which would possibly result from the labours of the Unification Committee now sitting.

The Hon. Secretary having announced dates of future meetings, the proceedings closed and the meeting terminated at 8.45 p.m.

* See JOURNAL R.I.B.A., 20th November 1920, pp. 42-3

NOTICES.

The TENTH GENERAL MEETING (ORDINARY) of the Session 1920-21 will be held MONDAY, 14th March 1921, at 8 p.m., for the following purposes:—

To read the Minutes of the Meeting held 28th February: formally to admit members attending for the first time since their election.

To read the following Paper:

COTTAGE HOSPITALS

By H. PERCY ADAMS [F.].

ARCHITECT in a Western Canadian town wishes to dispose of his practice. Excellent opportunity to acquire a well-established practice.—For further particulars apply Box 2021, c/o Secretary R.I.B.A.

F.R.I.B.A., just demobilised from R.E., desires to purchase Partnership in old-established firm. Provinces preferred. Domestic and factory work.—Apply Box 131, c/o Secretary R.I.B.A., 9, Conduit Street, W.

A.R.I.B.A., (32), ex-officer with small growing practice in London, desires to enter into a Partnership with another architect or firm with established practice. Has capital available if necessary.—Apply Box 2321, c/o Secretary R.I.B.A., 9, Conduit Street, W.



WOLCURN COTTAGE HOSPITAL H. Percy Adams, Architect

COTTAGE HOSPITALS.

By H. PERCY ADAMS [F.].

Read before the Royal Institute of British Architects, Monday, 14th March 1921.

WHEN the Council of the Royal Institute of British Architects invited me to read a Paper on Cottage Hospitals, I appreciated the compliment, but I must confess the subject at first sight did not appear to offer much scope for a Paper to be read before such an audience, yet any discussion that these notes may give rise to cannot fail to interest architects and others proposing to erect cottage hospitals.

There has been very little literature upon this subject. A few pamphlets were issued in 1860-70, and short accounts have appeared from time to time in the technical journals. The most recent work seems to be that very complete book by the late Sir Henry Burdett called *Cottage Hospitals*, the last edition of which was published twenty-five years ago. This shows a few plans, but gives little information of interest to architects about the construction and details.

Probably the first cottage hospital was that erected at Cranleigh, Surrey, in 1859, by Mr. Albert Napper, and he appears to have organised a system to overcome the defects of giving free medical relief, by insisting that patients should contribute something according to their means, and that medical men should be allowed to see their own patients in the wards; this scheme of payment has been more or less adopted in nearly all cottage hospitals and, since the war, owing chiefly to lack of funds and the recognised ability of the working classes to pay, has been adopted in most of the general hospitals.

The object of a cottage hospital is to provide readily accommodation for the sick poor, in districts situated long distances from towns having general hospitals: to enable local doctors to treat their poorer patients under favourable conditions, and to allow local and visiting surgeons to perform operations which otherwise would have to be sent long distances to the general hospital.

Cottage hospitals are of two distinct types: those that have been converted from existing buildings, and those that have been built for this purpose. In the former, the original building has probably largely governed the plan, as at Cranleigh, where a Surrey cottage was converted at a cost of £50. In a new building there is more opportunity of arriving at the ideal, both in the plan and detail. New buildings are also of two classes: the permanent, of brick, stone or concrete: and the semi-permanent, such as wood-framed buildings and those built of slab partitions, etc.

A cottage hospital is generally understood to be one containing any number from three to twenty or even to thirty beds; above that number they become general hospitals. Much the same rules apply

in designing and constructing both. Forty years ago it was contended that better results were obtained in the cottage than in the general hospital. This was probably owing to the larger floor and cubic space and the greater individual attention given to each patient, also to the fact that the former are usually in the open country: but statistics do not now show that there is any distinct advantage. The hygienic conditions and the medical and nursing attention have vastly improved in general hospitals in recent years. In most cases it is easier to raise money for the upkeep of a cottage than of a general hospital: the local residents know its objects and have a more personal interest in it, local clubs subscribe generously, and entertainments and concerts are organised on its behalf: and what more fitting memorial is there than a cottage hospital?

Approximately the number of beds provided in the country districts where cottage hospitals exist is about four per thousand of the population. As to the cost of building, this at the present time is very difficult to arrive at; probably about 2s. 6d. a foot cube would be somewhere near the mark, but approximating the cost at so much per bed is always elusive and a very deceptive method of arriving at the cost of any hospital, as so much depends on the surroundings, the nature of the site, local conditions, and the accommodation provided—and these all vary enormously.

The site should be easy of access for patients and medical officer, and as far as possible ought to have a gravel subsoil, not clay: be dry, thoroughly well-drained, clean, and well raised above the surrounding country, in a sunny position, sheltered from cold winds, free from drainage from higher ground (which should be intercepted if necessary); there should not be many large trees near the buildings as they attract moisture and interfere with the free circulation of air. If expense is not of great importance, it is well to have the ward floors well above the ground level, and the surface of the building site should always be covered with a layer of concrete. A good water supply is essential, and it is a great advantage to be able to connect the drainage to a main system.

The general arrangement of the plan depends largely on the number of beds to be provided: there are many details considered essential in a general hospital that are not possible in a cottage hospital. Quite small buildings are usually in one block and provide for about six beds, generally consisting of a male ward for two or three beds, female wards for two or three beds, a single-bed ward, a bath room, a sink room and w.c. for each sex, and for administration; a kitchen, scullery and larder, an operating room, a small dispensary, a sitting room and three bedrooms for nurses and servants, a staff w.c., a shed for fuel and ambulance. From six beds upwards, there is a tendency in most plans to obtain more complete separation of the kitchen department from the wards, undoubtedly a great advantage to the patients.

The accommodation is usually a male ward of from four to eight beds, female ward of from four to eight beds, one or two single-bed wards, bath room, sink room and w.c. for each sex, ward kitchen, larder, linen room, store for patients' clothes, operating room with possibly small sterilizing room adjoining, a doctor's room or dispensary, nurses' sitting room and two to four nurses' bedrooms, servants' bedrooms, bath room and w.c., general kitchen, scullery, small pantry, larder, store room, stores for fuel, a detached mortuary and ambulance shed. The larger cottage hospitals for over twenty beds more or less follow the pavilion type of plan, and are really miniature general hospitals.

DETAILS OF THE PLAN.

Opinions differ largely as to the cubic feet to be allowed patients in the wards—1,000 feet to each bed should be a minimum: some authorities allow 1,500 or even more: the floor area per bed should not be less than 100 square feet, the head space per bed—that is, from centre to centre of beds—should be at least 8 feet, and wards with beds on both sides should be at least 20 feet wide, or 24 feet wide if there is a central fireplace: the minimum height of a ward for six beds or over should be 11 feet. The walls and ceilings should be of some non-absorbent material, such as cement or plaster, with a hollow cove in the corners and next the ceiling. Distemping is usual, but if finished

with enamel paint, at any rate on the dado, it is far more lasting and preferable in every way. Tile dados are expensive, but can be made to look extremely well, are easily washed and more or less permanent. A few years ago a wall-paper was introduced into this country from Switzerland called *Salubra*: it was paper, covered with four or five coats of enamel, it could be quickly fixed, had a long life and was easy to wash, but, although very largely used on the Continent, does not appear to have been used much, if at all, in England for hospital wards.

Floors of teak are as good as any, and if of boards they should be secret nailed, but a good teak parquet has closer joints and is even better. They should be finished with a polish of beeswax and turpentine, never washed, but dry cleaned. Oak is not so good as teak, as the grain is more open, and maple, although hard, is treacherous and likely to wear unevenly. There should be a hollow cove of teak four inches high next the walls. A good floor can be made with thick linoleum, either laid direct on the cement concrete or on a deal-boarded floor and wax polished. Many jointless composition floors are on the market composed largely of sawdust or cork, and are well advertised with delightful little coloured samples, but it is questionable if they are quite satisfactory for hospital wards. They wear roughly, and most of the colour disappears in a short time.

Windows for wards should have a glass area of not less than one square foot to every 64 feet of the cubic area. The glass line should be not more than 2 feet 6 inches to 3 feet from the floor, and should be taken up as near as possible to the ceiling. The best form is a double-hung sash with the lower rail of the bottom sash 6 inches deep and with a deep bottom rail on the cill so that the lower sash, when raised a few inches, allows of ventilation at the meeting rails, and above the sashes there should be a transome with a fanlight over it, having, in order to avoid down draught, independent glass side cheeks fitted in an iron frame and so made that the fanlight can pass the frame for cleaning purposes. Another good type is constructed with two "austral" balance sashes of equal size, and with transome and fanlight over as before. The advantage of these windows over the ordinary sashes is that they do away with the need of boxing, sash lines and weights being arranged on a system of one sash balancing the other on a pivot turning upon a fixed point. It is well to fix obscured glass in the fanlights over the transomes and clear sheet or plate glass in the sashes: the blind or curtain can then be fixed at the transome level. The best window boards are those made of polished teak, tiles or glass.

Doors to the wards should be at least 3 feet 6 inches wide and as far as possible without mouldings: if panelled doors are used the panels should be large, and to avoid shrinkage American white-wood, compo board or linoleum can be used, but there are excellent flush-on-both-sides doors on the market built up and veneered with teak or birch, and french-polished. There should be no moulded architraves, and if these must be used then flat slips of wood with slightly rounded edges are best. One method of dispensing with architraves is to cover the join between door frame and plaster with a glued strip of canvas, sandpapered when dry, and then painted.

Joinery can be either painted, enamelled, or stained and varnished: enamel is best, but stained and varnished less costly in upkeep. Door and window furniture should be of the simplest forms and of material to minimise cleaning, such as bronze left to go its natural colour, silveroid, hard wood, glass or china. Where there is much traffic it is well not to have square plaster angles, as they soon become chipped.

The sanitary annexes, containing the sink room and w.c., have in most recent hospital work been disconnected from the wards by what are called cross-ventilated lobbies. In these days of modern sanitation these are hardly so necessary as in the old days of indifferent plumbing: in the new plans just issued by the Ministry of Health for model maternity hospitals, and also in the recently erected hospital in connection with housing schemes, and in the new Chelsea Hospital, by no less an expert than Mr. Keith Young, the sanitary annexes are no longer disconnected from the wards by cross-ventilation.

It is an undoubted fact that the windows in cross-ventilated lobbies are often kept closed and that the doors are often fixed open. Windows fitted with glass louvres which cannot be quite closed have

been used, so that a cross-current of air is guaranteed. The objection to this is that the patients are subjected to a draught in passing through to the closets. These sanitary annexes should, if possible, be warmed, as otherwise the air from them is drawn into the ward. The ceilings of the connecting lobbies are sometimes lower in height than the main ceiling of the wards, the space between this low ceiling and the floor above being in the form of a bridge and open to the outer air in order to allow a free circulation of air around the wards. The floors and walls should be of materials as impervious as possible—white marble terrazzo for the floors, with cove skirtings next the walls, and the latter either tiled, enamelled, painted or distempered. W.c. doors should always open outwards, as otherwise a patient may fall against the door and prevent it being opened. The w.c. apparatus should be of the simple wash-down pattern, and the corbel type is perhaps the best, as it allows of the floor being more easily cleaned.

The sink rooms should contain a special sink for emptying bed pans and receiving slops, and should have a three-gallon flushing tank. It is very useful to have a scrubbing slab and an adjoining sink for soaking mackintosh sheets and soiled linen. There should be a rail or shelf for bed pans, over a radiator if possible, and a cupboard for brooms and pails. In larger hospitals I have frequently provided a small glass-fronted and topped cupboard, with direct gratings to the outside air, for keeping excreta and urine that have to be examined by the doctor; if this cupboard is built across the corner of the room the gratings will afford good cross ventilation. In many hospitals the doors to the sink rooms have been removed, and it is questionable whether they are really necessary. In quite small hospitals for as few as three or four beds, in order to obviate the necessity of a sink room and a special bed pan sink, a long bracket tap can be fixed on the wall which can be swung out over the w.c. apparatus to wash out the bed pans, but this is not an arrangement to be recommended.

The bath room should be, if possible, 9 feet by 8 feet, and the bath placed centrally in the room, with the head of the bath facing the window; one bath room is usually enough for ten or twelve patients, and, if well placed, can be used by both sexes. The bath should be of porcelain-enamelled iron, and to simplify cleaning the taps could be of the same material. In quite a small building I prefer brass or gunmetal, as nurses take a pride in a few bright things. On all groups of hot and cold water fittings there should be a stop-cock so that any one section can be cut off for repairs without emptying the entire system.

A ward kitchen or duty room is usually provided in hospitals of more than ten or twelve beds. Here the washing up and minor cooking operations for the wards are carried out. If placed between the male and female wards, with small spy windows, a night sister can well supervise two wards. There should be a sink at least 2 feet by 1 foot 6 inches by 8 inches placed either in the window or on the wall to the right of the window, with teak capping to edge of sink and grooved draining board; both of these should be hinged for cleaning purposes, as grease quickly accumulates under the edges. The best plate rack is that made with two hard wood sides and galvanised iron wire divisions. There should be a fixed dresser, the wall of the room forming the back, and tiled; the lower part should have two drawers and a hard-wood top that can be scrubbed, and above this shelves for crockery, the shelves fixed $\frac{1}{2}$ inch away from the back so as to be easily cleaned, and without corners. There should be a small coal range with oven, or a gas oven with gas ring on the top; also a small tile-lined (or fireclay in one piece) larder for milk, beef tea, etc., well ventilated by gratings to the open air.

OPERATING ROOM.

The operating room is sometimes omitted in quite small hospitals and some other room has to do duty in emergencies, but where the building has been erected by some wealthy patron the operating room is often as well furnished and equipped as in any general hospital. Bath rooms have been built especially large and used as emergency operating rooms, with good results.

The ideal operating room should not be less than 18 feet by 16 feet and have a large north side light as well as top light made of iron and glazed with clear plate glass where not overlooked. A few

iron bars are no detriment, as being on the north side they cast no shadows. The eill of the window should be at least 3 feet 6 inches from the floor and part of the window made to open as casements. The ceiling and walls can either be of white glazed tiles or enamelled, the floor should be of white terrazzo, and taken up the wall as skirting for at least six inches, with a hollow formed in all angles; the eills of windows should be either of tiles or glass, the doors perfectly flush both sides and four feet wide. It is an advantage to finish an operating room white as far as possible, it can then be seen at once if not kept spotlessly clean, and one rarely gets too much light. The fittings usually provided are, at least one sink 2 feet by 1 foot 6 inches by 10 inches, with white fireclay slab on either side and one lavatory basin. There are various devices for turning the water off and on without using one's hands; the simplest and best is to have a cranked length to the lever tap that can be moved by the arm, and with a projecting rose so that the hands may be washed under running water. The sinks and lavatories should discharge by a vertical enamel iron waste pipe, removable for cleaning, over a white glazed channel. This serves also for sluicing down the floor. Over the sinks and lavatories, and also alongside them, are fixed plate glass shelves on metal supports for the antiseptic solutions, etc.

The best heating is obtained by vertical loop radiators with the loops specially wide apart so as to be readily cleaned. The radiators in operating rooms are often supplied from the hot water services so that at any time the room can be warmed when the heating boiler is not in use. Radiators are best made to swing out into the room for cleaning purposes; they should be supplied with fresh air through glazed pipes or tiled inlets in the out-side walls, having removable baffle gratings for access, so that the glazed inlets can be sponged out.

There should be extract ventilators next the ceiling, but if electricity is available it is an advantage to have a small electric fan fixed in the wall next the ceiling on the opposite side of the room to the inlet ventilators. By this means the air can be changed in a few moments.

In small hospitals electric radiators are useful in heating the operating room quickly in an emergency.

WARD FURNITURE.

Bed lockers are required for patients, these standing next to their beds, and are of various patterns, usually a cupboard below to contain shoes, brush and comb, etc., and the top forming a shelf: some have an upper deck or shelf above. One was made for me some years ago, and is now largely used in general hospitals: it consists of a locker below, and the top forms a seat for patient or visitors (thus doing away with the need of a chair): the back is hinged at the top with a movable bracket under it so that when lifted and the locker swung round it forms a table over the bed on which the patient can have meals and play games, and behind the back is a cupboard with glass shelves. This is open only on the side opposite to the patient's bed and is used by the nurse for medicines. The top is covered with opal glass or tiles and is used for medicine glasses and drinks, and has a wood roller at the back for hanging a towel, and there is a rail above with a clip for the patient's record card.

The ward table should be of the simplest form without turned or moulded legs, the top either of glass, tiles, polished hard wood or of linoleum wax-polished.

Bedsteads should stand away from the wall at least six inches, and to enable this to be done and to obviate the necessity of a raised wood fillet on the floor, have been made with the side frames lengthened by six inches at the head and rubber buffers inserted to prevent damaging the wall. These lengthening pieces are also useful as handles in moving the beds.

The cupboards for patients' clothes should be well ventilated and placed outside the wards and in charge of the nurse. All cupboards should either be taken up to the ceilings or have sloping tops that can be seen from the floor. Baskets should not be used for soiled linen: bags are better, as they can be washed.

Roller blinds for wards are not very hygienic unless they can be washed or cleaned; it is preferable to have washable curtains.

The remaining administration rooms should all be treated as to detail in a similar way to the wards, with no dark corners, and everything designed so as to be easily cleaned and with no moulding or places for lodgment of dust and dirt. If corridors are laid with terrazzo, to prevent cracking, it is best to lay them in panels of not more than 9 feet square with slips of wood temporarily placed between the panels and at a later date replaced with cement. The general kitchen and offices should have solid floors, the kitchen with a surface of wood block, and scullery, larder, etc., of tiles, terrazzo, or cement, the ceilings and walls painted or distempered.

The bedrooms if fitted with lavatories will save labour.

HEATING.

Heating of small cottage hospitals is usually by either open coal fires or by gas stoves, and in the larger hospitals these fires are often supplemented by heating pipes or radiators from a central heating apparatus. The open fires should be of the slow combustion type and the best are those supplied with external air to a chamber at the back of the stove delivering the warmed air at a height of about seven feet into the ward. A most efficient and perhaps the cheapest possible slow combustion fire can be built with a few fireclay bricks laid edgeways on a solid hearth with an inch space between the bricks.

An inexpensive method of heating the wards of a small hospital is to have a closed type of anthracite stove with hot-water boiler at the back, the front of the stove fitted with mica and the stove fed and the ashes removed from a door at the back of the stove opening into the ward kitchen or the corridor. By this means the ward is kept free from noise and dust, and from the hot-water boiler at the back of the stove would be flow and return pipes to feed radiators to warm the wards. All radiators wherever possible should have a supply of fresh air fed to them by means of glazed pipe flues in the external walls.

Hot-water services are usually supplied from a boiler at the back of the kitchen range or from an independent boiler, and the storage cylinder for hot water is well placed in the linen room (the latter should have open lattice shelving). From the cylinder flow and return pipes are taken in the usual manner to the various fittings. It is better to paint all pipes and radiators with metallic paint rather than oil paint or enamel as the latter soon chips off and becomes discoloured.

LIGHTING.

Lighting by natural light is essential in every part of the hospital, not only in wards, but in every corner and cupboard; daylight is the enemy of disease and also of dirt. Artificial lighting by electricity is undoubtedly the most efficient and hygienic, and if not obtainable from the public mains there are several types of combined plant on the market consisting of petrol engine, dynamo and storage battery, automatically started and stopped by merely switching on a light. It is well, on account of noise and vibration, to instal the plant in some room well away from the main building. In lighting a ward by electricity the lights should be distributed so as not to allow a glare in the eyes of the patients: probably the best method is to have a central light with a shaded night light, and a bracket and wall plug to each bed or between each two beds, fixed at 6 feet 6 inches from the floor. The light can be shaded so as not to annoy other patients, and the wall plug serves for a hand lamp for the use of doctor or nurse. A cheaper method is to have a hanging wall bracket that can be unhooked and used as a table or hand lamp.

DRAINAGE.

Drainage, where possible, is best connected to a main drainage system, but in out-of-the-way districts it may be necessary to dispose of the sewage by other methods, such as earth closets or a septic tank system, if ample land is available for the purpose. Earth closets involve a good deal of labour, and portable earth closets for those confined to bed are always a nuisance.

Drains are usually of socketed stoneware pipes with cement joints and laid on a bed of cement

concrete, or of cast iron pipes with molten lead joints and laid on concrete or supported by concrete under the joints. All drains should be laid in straight lines, and where there is a change of direction a manhole for inspection should be placed; approximately, for horizontal drains, one in forty is the best fall. Vertical soil and ventilating pipes are either of lead or cast iron, and for larger hospitals where there is much in use iron is better, as lead pipes are likely to buckle from hot water used for the bed pan sinks, and lead cannot be plunged through so easily as iron. I have known 3½-inch lead soil pipes completely blocked in twenty years with a hard rock-like urine deposit impossible to clear.

All sink, lavatory, and bath wastes should be ventilated and vertical wastes taken to the top of the building. No open heads should ever be used for receiving these wastes, as they collect filth.

All internal pipes for plumbing work should be exposed, and it is best if they are kept clear of the walls.

Few cottage hospitals have been erected that show the special knowledge of detail so thoroughly studied in most modern general hospitals, and Dr. Mackintosh's remarks in his recent excellent book, *Construction, Equipment and Management of a General Hospital*, would equally apply to most cottage hospitals. He says: "The main principles underlying the construction of a hospital can, no doubt, be laid down and applied by any skilful architect. But in a modern hospital there are details of construction of which the need and the conditions under which the need can be met are known only as a result of experience in hospital administration. . . . It frequently happens in modern hospital plans that while the buildings themselves are on approved lines the lack of administrative detail negatives much of the benefit which might otherwise be obtained."

I now propose to describe shortly a few cottage hospitals.

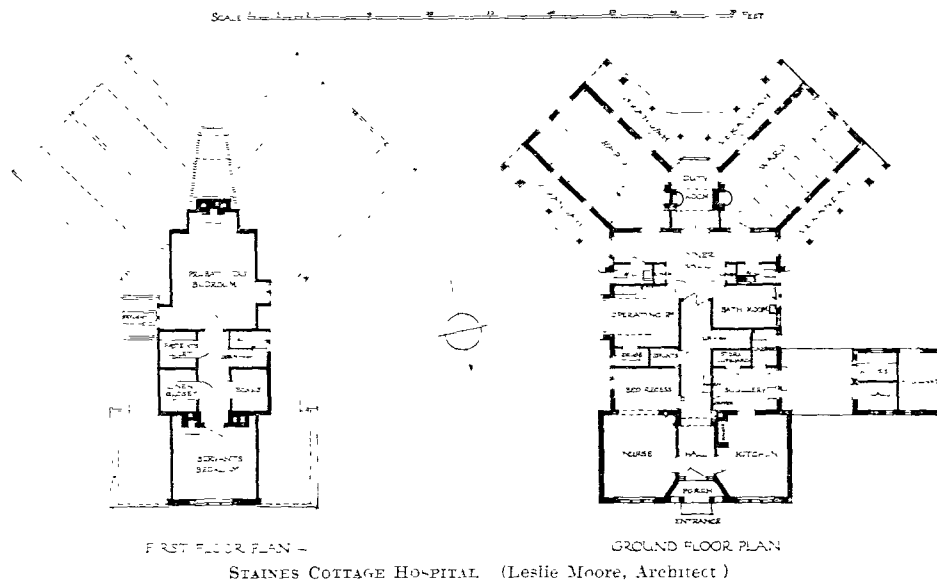
CRANLEIGH COTTAGE HOSPITAL was probably the first erected in this country, and although of very primitive type, being adapted from a Surrey cottage at a cost of only £50, has done much good work.

MANCOT COTTAGE HOSPITAL, near Chester, was erected in 1916 in connection with the Government housing scheme at Mancot. It is an interesting plan on quite different lines from any other cottage hospital. The wards, with their sanitary annexes, occupy the whole of the southern side of the block; the operating room, with north aspect, is centrally placed; the kitchen and female staff quarters are in the west wing, and the medical officers' quarters in the east wing. The plan is compact and economical: the wards are not cross ventilated by windows, although the position of the ward doors opposite the corridor windows would assist the ventilation, and for six beds the cubic contents for these wards is only 770 feet per bed. The ventilation is assisted by Tobin tubes and roof extracts, a rather out-of-date method in hospital work. The architect was Mr. Raymond Unwin. (See plan, p. 289.)

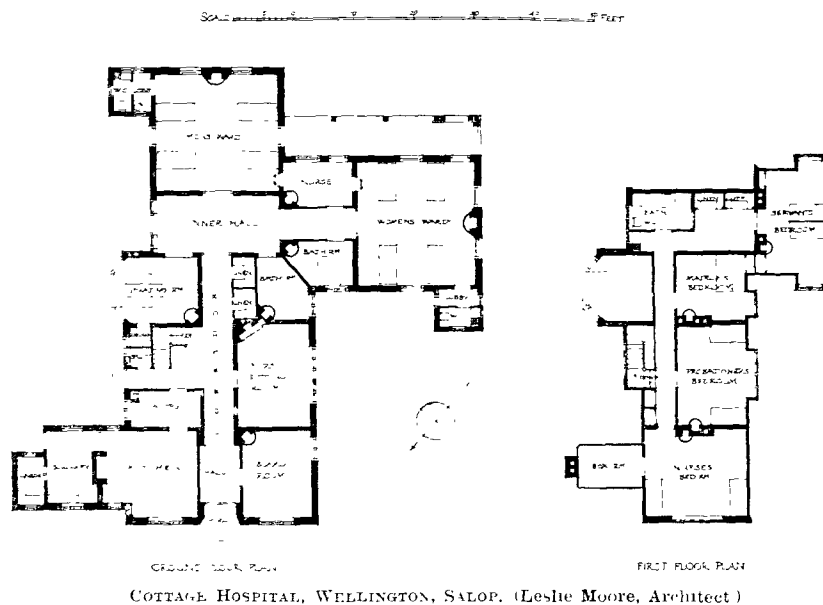
EAST RIGGS HOSPITAL AT GRETNA.—This hospital is also from the Ministry of Munitions, and is an isolation hospital. The wards are only 22 feet wide, and have central stoves which do not allow of sufficient space between the beds in the centre of the ward. There is no cross ventilated lobby between the w.c.'s and the wards. The architect was Mr. Raymond Unwin.

STAINES COTTAGE HOSPITAL was erected in 1914, and is quite a model little hospital. The plan is Y-shaped, with the arms forming the wards facing south. Each ward is planned for three adults and one child, and there are verandahs on two sides of each ward. Unfortunately, the doors leading on to them are too narrow for the patients' beds to be wheeled through; there is cross ventilation of the ward by small sash windows and a large window at the end of the ward with lower sashes folding horizontally one over the other and with a fanlight above the transome. Between the wards is a small room used by the night nurse when on duty, and having small spy windows looking into the two wards. At night, with an electric light in this room, it is not necessary to have any light in the wards. Originally planned with a w.c. for each ward, but with no w.c. provided for the staff, one of these is now taken for the

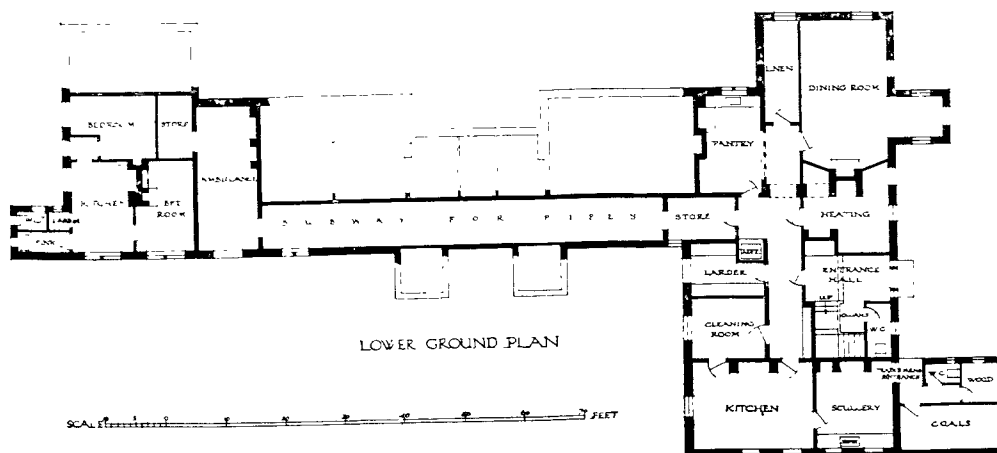
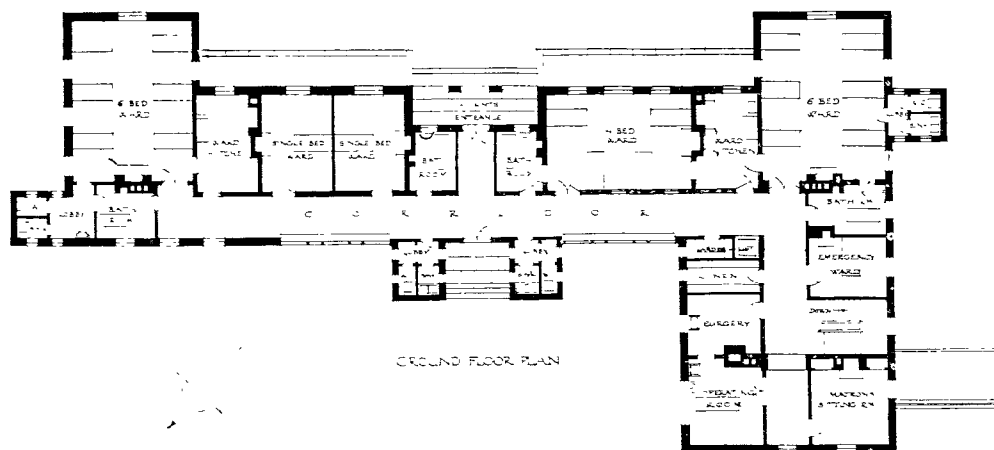
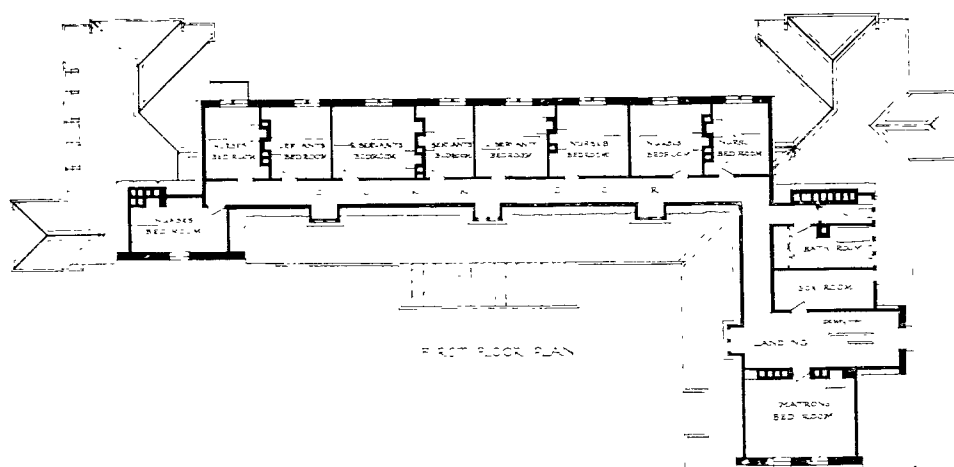
latter, and the male and female patients use the same w.c., an extremely unsatisfactory arrangement, and, to make matters worse, in this w.c. is a slop well, with taps over it for cleaning bed pans. The bath room is ample in size and is fitted with an iron bath on wheels, but far too heavy to move. The



sterilizing is all done in this room, and for a small hospital seems a good arrangement, and especially if the bath room is planned adjoining the operating room. The operating room is very small, but well lighted with a top and side light and well fitted; all the service pipes to the fittings are concealed by wood casing, enamelled white to match the walls. The floor is of white terrazzo. A small dispensary



is entered through this room. The heating is by a radiator supplied from a boiler at the back of the dining-room fire, and this is supplemented as occasion requires by electric radiators. The front block, facing north and looking on to the main road, contains the kitchen, scullery and larder on one side of



SOUTHPORT COTTAGE HOSPITAL. (H Percy Adams, Architect)

the hall and on the other the nurses' dining-room and sisters' bedroom. On the first floor are the matron's, night nurses' and servants' bedrooms—unfortunately, the night nurses' bedroom is directly over the operating room, the noise from which is often very disturbing. All the ground floor rooms, with the exception of the operating room, have solid concrete floors covered with linoleum, wax-polished, and red tile skirtings. All the joinery work on the ground floor is enamelled white, excepting in the kitchen department, where it is grey, and on the first floor it is all stained. The building is lighted with electricity from the company's mains; each patient's bed has a movable wall bracket that can be used as a table or hand lamp, and telephones are connected to the bell wiring. There is a small isolated building for mortuary, with a knife house and coal store. The elevations are very picturesque, standing in well-laid-out grounds. The whole was carried out for the extremely low figure of £1,250, and reflects the greatest credit on the architect, Mr. Leslie Moore. (See plans, p. 280.)

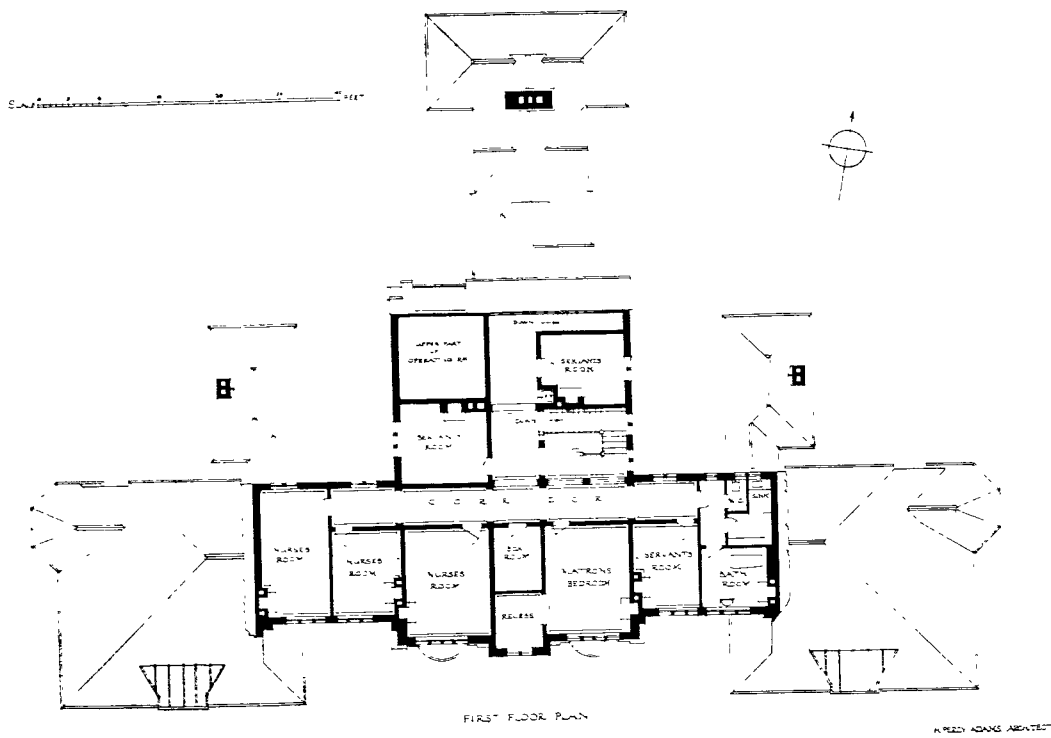
WELLS COTTAGE HOSPITAL was erected in 1910 by tenants on the Holkham Estate as a memorial to the Earl of Leicester; the plan is very similar to the one at Staines, practically the only difference being the omission of an operating room and the outside coal store and mortuary. Everything here seems to have been reduced to a minimum. There is no special sink room for the wards and no separate w.c. for the staff. Yet one cannot but marvel in these times, when assured that this little hospital complete, including a well 20 feet deep and a pump, the roadway, the oak gates, the lighting and the drainage system with a septic tank, were all carried out for £1,000. The architect was Mr. Leslie Moore.

WELLINGTON COTTAGE HOSPITAL was built in 1912 and was designed for 16 beds, but at present only ward accommodation for eight beds has been carried out. The plan is unusual, but has many good points. The wards, each 20 feet 6 inches by 19 feet 6 inches by 12 feet high, have a good aspect and are well cross ventilated. There are no separate rooms provided for sinks for emptying bed pans. These are placed in the w.c.'s; not a good arrangement. The wards for male and female patients are very close together, but undoubtedly by this plan, with a small nurses' room between them, the supervision is simplified, especially the night duty. For the extension it will be necessary to pull down the entire ward ends and the fireplace and chimney stacks. None of the large space over the wards is utilised in any way. The cost of the building was £2,000. The elevations are quite interesting. The architect was Mr. Leslie Moore. (See plans, p. 280.)

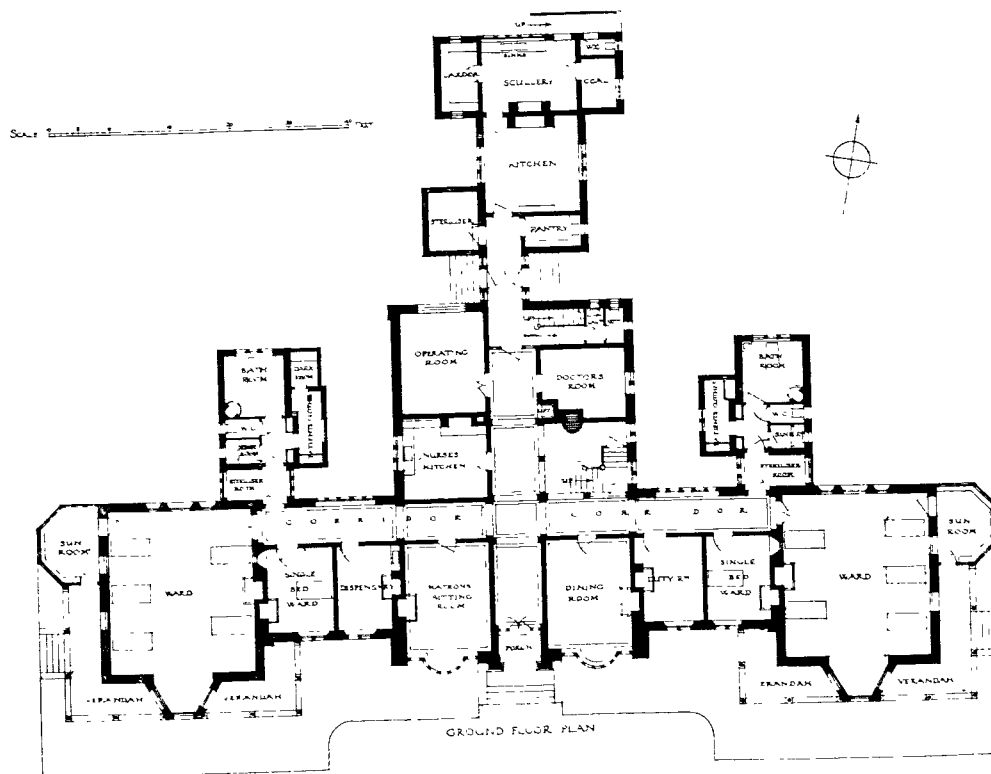
AXMINSTER COTTAGE HOSPITAL was built in 1912 on an extremely limited and awkward site; probably it would have been better to have found some other site, for the plan has few features to commend it; possibly it was the best that could be done on such a restricted and awkward site. The architect was Mr. Leslie Moore.

HENDON COTTAGE HOSPITAL was built in 1913 as a memorial to King Edward VII. and is designed on a Y-shaped plan, each arm consisting of a three-bed ward 20 feet by 19 feet by 12 feet, with ample verandahs and with sanitary annexe containing w.c., sink and lavatory well cut off by a cross ventilated lobby; the bath and ward kitchen are placed between the wards and entered from a well-lighted corridor shut off by swing doors from the administration section. This is two floors high and the ground floor consists of an operating room with good top and side light, and a terrazzo floor, a single bed ward, a small dispensary, kitchen, scullery, larder, and outbuilding containing coal house, ambulance shed, tool house, and w.c. On the first floor are bedrooms for matron, two nurses, and two servants, bath room, w.c., housemaid's closet and linen cupboard. Recently an addition has been made consisting of a kitchen and scullery with two bedrooms over, and the original kitchen is now used as a nurses' dining room. The floors are all concrete on the ground floor, and covered with linoleum in the wards, wood blocks in the kitchen, terrazzo in the operating room and bath room, and tiles in the hall and corridor. The hospital is very similar in plan to those at Wells and Staines and carefully thought out in all its details. The cost of the building was £2,250. The architect was Mr. W. A. Forsyth. (See plans, p. 289.)

BEAWORTHY COTTAGE HOSPITAL was erected in 1903. The wards have good aspect but no cross ventilation, and the sanitary block is well cut off from the corridor. It contains only a w.c. and no



WOBURN COTTAGE HOSPITAL (H. Percy Adams, Architect)



WOBURN COTTAGE HOSPITAL (H. Percy Adams, Architect.)

slop sink; the wards are too far apart to be easily supervised: many of the rooms in the building face due north. The children's ward looks over the railway, and the reason for this, the architect states, was that it was the only entertainment they were likely to get near the site. The floors of the corridors are paved with tiles, which are generally noisy. The elevations are quite interesting. The architect was Mr. C. F. A. Voysey. (See plan, p. 287.)

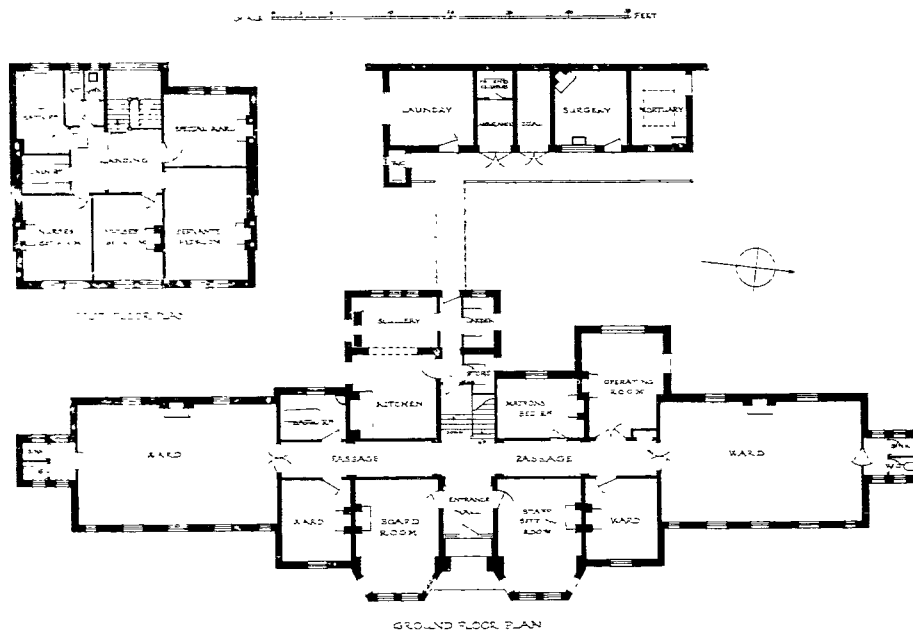
WOBURN COTTAGE HOSPITAL (see plans, p. 283) was erected by the Duke of Bedford in 1903 on a beautifully situated and elevated site facing almost due south: there is a separate isolation block, about 40 feet away to the north of the main building, and in one corner of the site, hidden by a well shrubbed bank, is the mortuary. The sketch plans of the hospital were made by the Duchess of Bedford, who took the greatest interest in every detail of the work. The hospital is planned for 12 patients, six of each sex; on the right of the entrance is the men's ward with five beds and a single-bed ward, and on the left the women's wards are similarly arranged. The sanitary annexes are on the northern side adjoining the wards; there is also in this front block a dispensary fitted with a sink, a day room for patients, a matron's sitting room, and a staff dining room. To the north of the ward corridor is the ward kitchen, fitted with sink, dresser and a small range; the operating room with a north and top light and fitted with sinks and lavatories. On the opposite side of the corridor is the surgeon's dressing room (this room was originally planned for a housekeeper's store room), and shut off by a glazed screen is a staff lavatory and the back staircase. Further to the north and disconnected by a cross-ventilated lobby is the kitchen department, only one floor high, and comprising kitchen, scullery, pantry, larder, coal store and servants' lavatory. On the first floor are bedrooms for matron, nurses and servants, with bath room, linen room and w.c.

The large wards, planned for 5 beds, are 27 feet by 24 feet and 12 feet high, with segmental ceilings. The floors are of teak, waxed and polished, the walls are tiled with pale green tiles to a height of 5 feet, and above that height the walls are finished with white enamel paint, and also the ceilings. The sun rooms, entered off the large wards, are tiled throughout and give access to the tiled verandahs on three sides of the wards. The heating of the wards is by open fireplaces, supplemented by radiators of the open loop type, and heating pipes are taken round the sun rooms. The wards are lighted by electricity with a central fitting and with bracket lights and wall plugs over each bed. The windows are double-hung sashes with a "fall in" hopper above, having glass side cheeks to obviate any down draught. All the corners of the wards are rounded and there are no moulding or projecting surfaces. The main staircase is entirely of teak and the corridors paved with white terrazzo.

The electricity is generated in an adjoining building; originally the plant was placed in the basement, but the vibration and noise were very disturbing and so it was moved to an adjoining building. The water is pumped from a spring three-quarters of a mile distant. The drainage is taken to a septic tank situated in a field at a lower level.

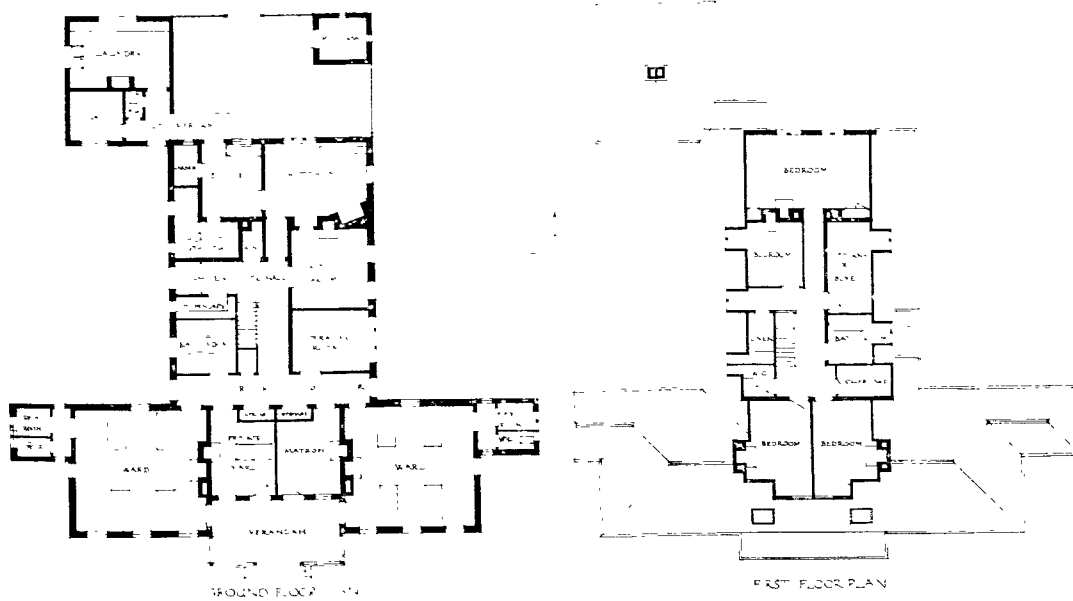
This hospital is used largely by the whole county, and has developed into a small special hospital for surgical treatment. The operating room is most completely fitted, and recently a sterilising room has been added, but unfortunately this is not next to the theatre, as it should be. An additional sterilising apparatus has been placed in the lobby adjoining each large ward.

Her Grace the Duchess of Bedford, who has had very considerable experience in the working of a hospital, having designed and superintended a completely equipped hospital for eighty-two beds, erected at Woburn Abbey during the war by the generosity of the Duke of Bedford, has very kindly given me some valuable criticisms. Her Grace is opposed to any ward that by its plan entails the patient being in a draught—there should be plenty of fresh air but no draught—and contends that all modern cottage hospital wards are wrong in principle, with their cross ventilation and the beds placed between doors and windows and the consequent despairing sequel of complaints, and that better results would be obtained by planning wards with large windows on the side facing south and small high windows above the beds on the north wall which could be opened when the weather did not permit

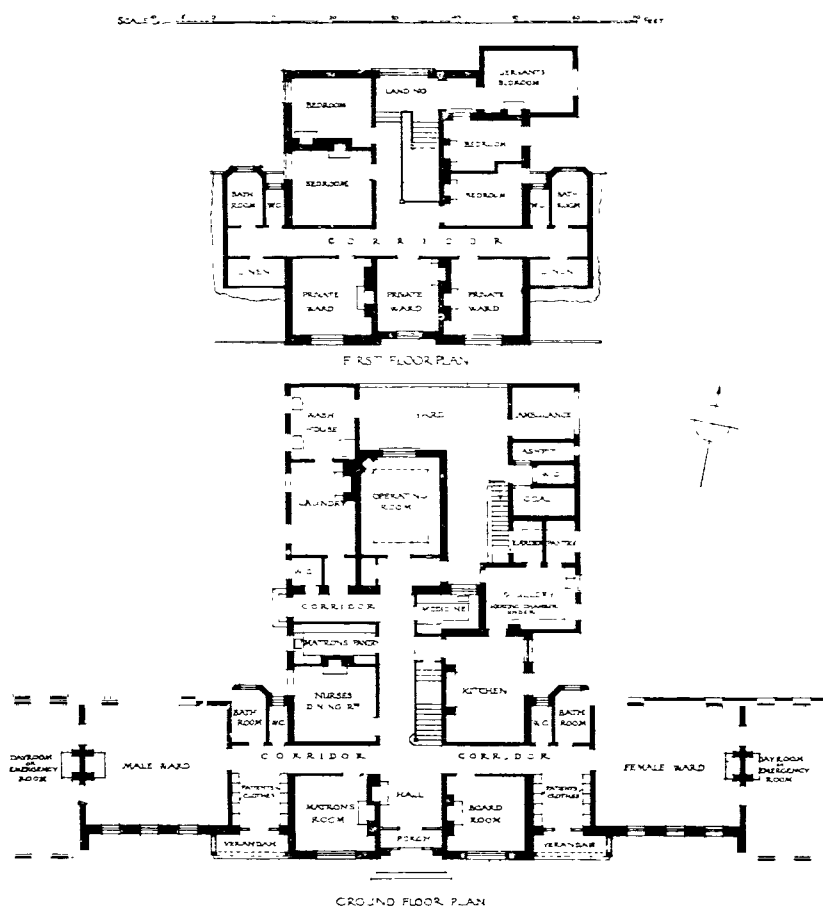


CRELKINE COTTAGE HOSPITAL. (Messrs Young and Hall, Architects.)

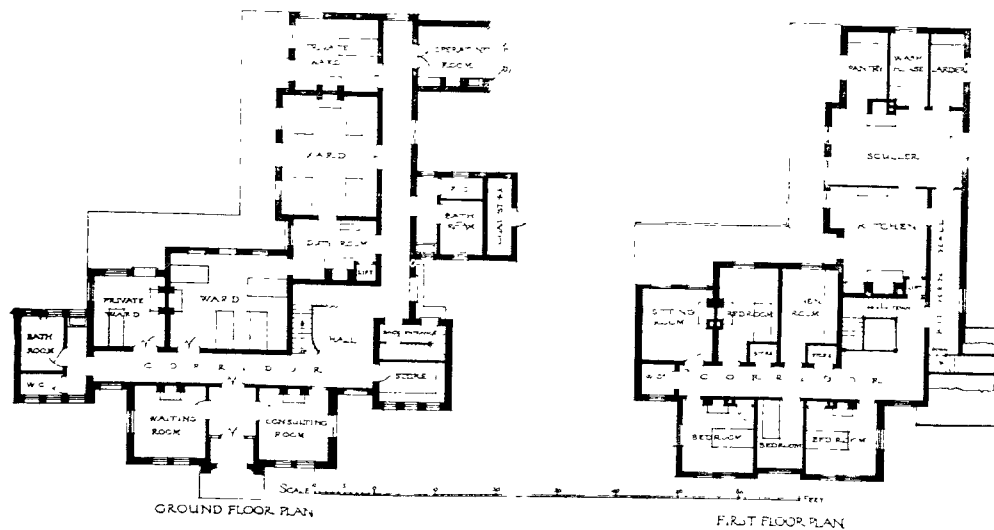
COCKERMOUTH COTTAGE HOSPITAL



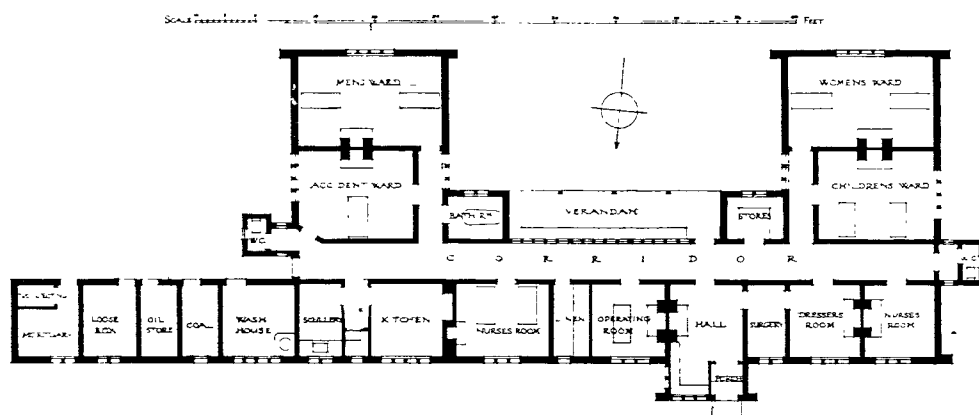
COCKERMOUTH COTTAGE HOSPITAL (E. Guy Dawber, Architect)



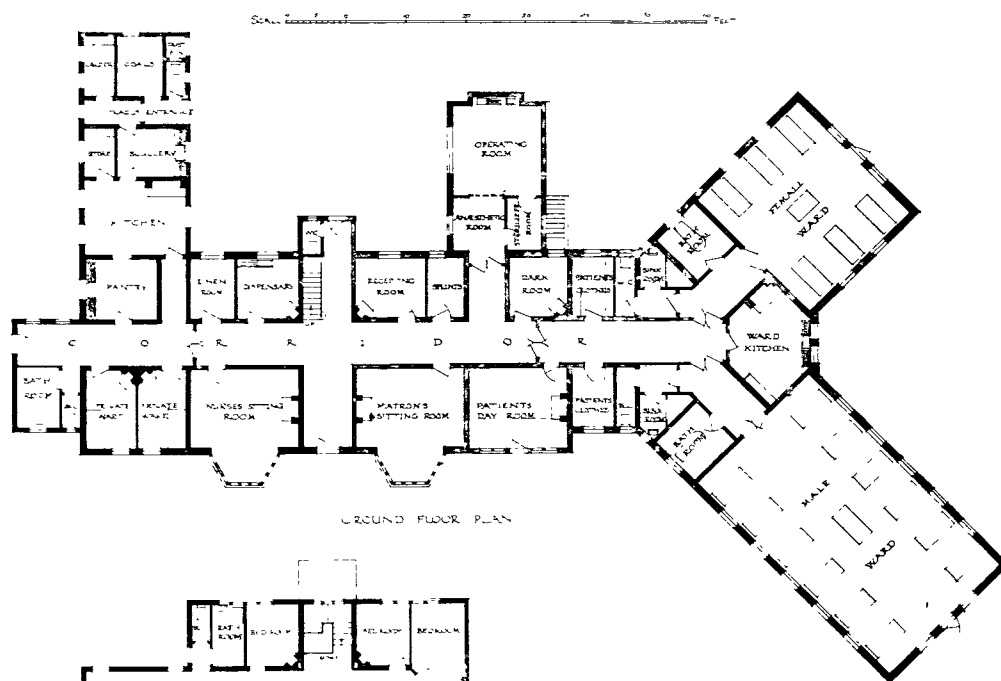
SMILEY COTTAGE HOSPITAL, LARNE. (Messrs Tulloch and Fitzsimons, Architects)



FELIXSTOWE COTTAGE HOSPITAL. (Henry J. Wright, Architect)



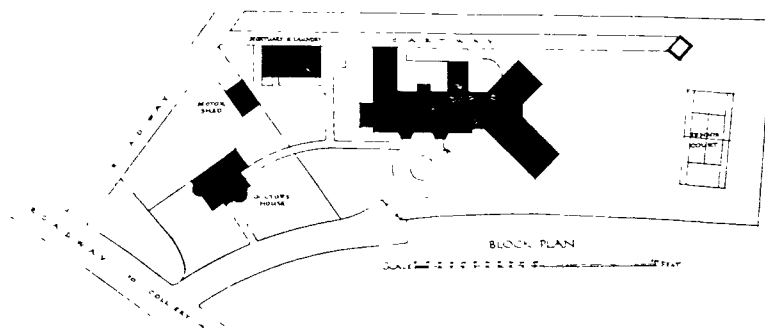
WINSFORD COTTAGE HOSPITAL, BEAWORTHY, DEVON. (C. F. A. Voysey, Architect.)



GROUND FLOOR PLAN



FIRST FLOOR PLAN



BLOCK PLAN

WARDE ALDAM COTTAGE HOSPITAL. (E. Holdsworth Walker, Architect.)

of the large windows being open, the doors in and out to be on the east and west side of the ward and opening near the windows, so that the beds are out of a draught. A small ward was formed on these lines at the Woburn Abbey War Hospital, and better results were obtained than from any other ward. An operating room in a cottage hospital should always have, if possible, a space set apart for a sterilising room: and as operations are carried out whenever possible with the windows open, these should be arranged to open to exclude the weather. Closed cupboards are preferable to open shelves. No plant for generating electricity should be placed in a cottage hospital: the vibration and noise are very disturbing to both patients and staff. It is probable that in the future all cottage hospitals will require some room for X-ray work. It is unnecessary to provide any separate building for isolation if there is an infectious hospital in the neighbourhood: a room in the building is sufficient for the short time it is used.

SOUTHPORT HOMŒOPATHIC COTTAGE HOSPITAL.—This hospital was built in 1912 on the site of an old battery on the sand hills, and the plan was largely influenced by the irregular levels of the site and also by the very exposed position. Any cross ventilation to the wards is obtained by borrowed lights into the corridors. The plan, I confess, does not look ideal on paper, but there were very special circumstances governing its arrangement, and the actual working is, I believe, extremely satisfactory. The late Mr. Norman Shaw selected the design in a limited competition. (See plans, p. 281.)

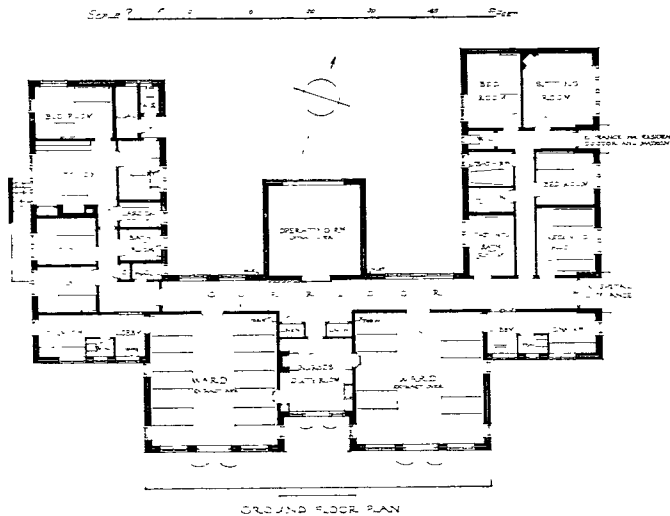
The building consists of three floors—namely, a lower ground floor under the west wing and part of the east wing, with a subway for pipes connecting the two, ground and first floor. The west wing lower ground floor consists of kitchen, offices, and staff entrance and dining-room. The east wing contains the quarters for a married couple and the ambulance shed. The main front faces south-east, with a central entrance on the ground floor. The hospital is designed for 19 patients: there are two wards for six beds, each 27 feet by 20 feet and 12 feet high: one ward for four beds, 24 feet by 16 feet: two single bed wards, 16 feet by 12 feet, for patients who are able to pay substantially in addition to doctors' fees, but all patients are expected to pay something towards the cost of treatment. There is also a small emergency ward near the operating room. A ward kitchen is provided for each sex, and a sanitary annexe with sink and w.c. and a bath room to each ward. The operating room, with surgery adjoining, faces north-east, and near it is the matron's sitting-room: the upper floor contains bedrooms for matron, five nurses and six servants, with bath room, box room, and w.c. Near the main building is a mortuary and view room, which have been converted from an old building. The whole cost of the building, including engineering, electric light and fittings, all road-making, laying out grounds, boundary fences, amounted to £4,490.

CREWKERNE COTTAGE HOSPITAL, SOMERSET, was erected in 1903 on an ample and prettily laid-out site. It is planned for 15 beds, seven of each sex on the ground floor, and a special isolation ward on the first floor. The large wards for six patients are each 33 feet by 20 feet and 11 feet high, with windows east and west, and with the sanitary annexes at the ends: a bath room, common to both sexes, is entered from the corridor. Also in the front block is a board room, a staff sitting-room, the matron's bedroom, and an operating room with west and north windows. The kitchen department is on a slightly lower level and cut off by a swing door. No pantry is provided. On the first floor are three good bedrooms for nurses and servants, with bath room and w.c. The floors of the wards are of teak, and in the operating room of terrazzo. To the west of the main block is an isolated building containing a laundry, ambulance shed and coal store, and a mortuary, and adjoining is a surgery for out-patients, rather an unusual feature in this position. The cost of the building was about £4,500. Messrs. Keith Young and Hall were the architects. (See plans, p. 285.)

THE MACKINNON MEMORIAL HOSPITAL at Broadford, Isle of Skye, built in 1911, is of stone, and has a most compact and excellent plan, with all its details carefully worked out, as one would expect from Messrs. Keith Young and Hall, the architects. (See plans, p. 289.)

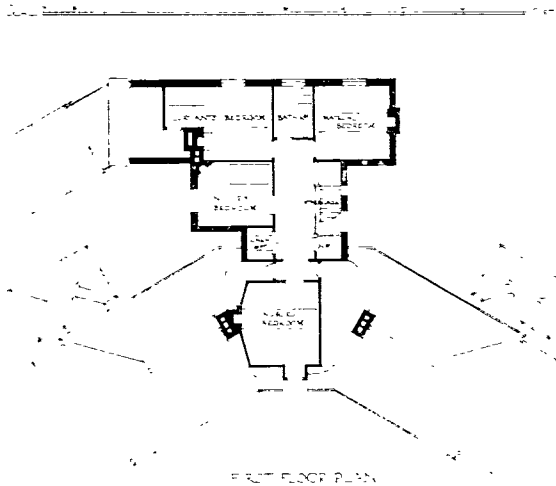
LIANFINE COTTAGE HOSPITAL was built in 1904 in connection with the Broomhill Homes, near

Glasgow, and is intended for incurable cases of consumption, and is therefore rather different to an ordinary cottage hospital. The large wards, each for eight beds, are well placed to obtain the maximum of sun, and have large verandahs on the southern sides. The wards are 12 feet high and have a cubic area of 1,100 feet per bed. The sanitary arrangements are not well planned. The ward floors are of polished maple and the walls of cement painted. The windows are double hung sashes, with a fanlight over. The warming is by open fireplace, supplemented by radiators fixed under some of the windows. The cost was £4,000, given by Miss Brown.

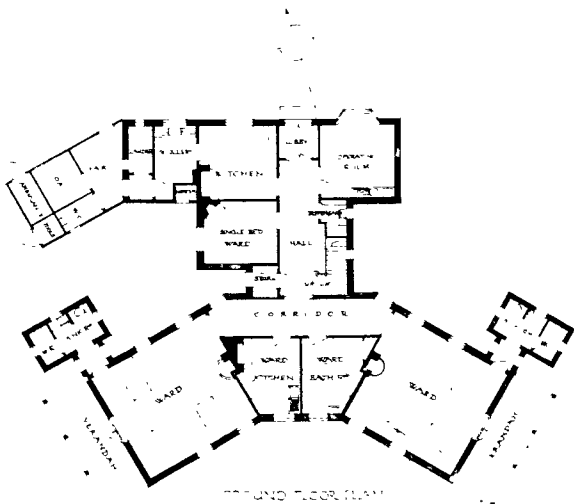


GROUND FLOOR PLAN

MANCOT COTTAGE HOSPITAL (Raymond Unwin, Architect)



FIRST FLOOR PLAN

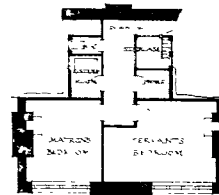
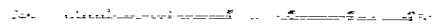


GROUND FLOOR PLAN

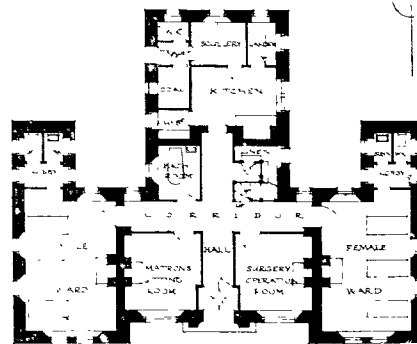
HENDON COTTAGE HOSPITAL (W. A. Forsyth, Architect)

of Lanfine, and the architects were Messrs. Salmon, of Glasgow.

FELIXSTOWE COTTAGE HOSPITAL was erected some ten years ago. The plan is of little interest, but is rather unusual, with, on the ground floor, ward for four beds and a single-bed ward for each sex, with separate sanitary annexes entered from separate corridors at right angles to each other, and



FIRST FLOOR PLAN



GROUND FLOOR PLAN

MACKINNON MEMORIAL HOSPITAL,
BROADFORD, ISLE OF SKYE.
(Messrs. Young & Hall, Architects.)

with the duty room at the corner. The aspect of ward, southerly, with good balcony but no cross ventilation. Also, on ground floor, a small operating room with north light, and next the entrance a waiting room and consulting room. The first floor is taken up with kitchen department and nurses' sitting-room and four bedrooms. The architect was Mr. Henry J. Wright. (See plans, p. 286.)

LARNE COTTAGE HOSPITAL, ANTRIM, was erected by the munificence of Mr. Smiley, and is for 22 beds. The plan is Y-shaped, with a centre block of two floors and side wings of one floor. The plan has an unusual arrangement of what may be called double wards—one part for six beds, and the other part can be used either as a day room or as an extension for four beds. The sanitary arrangements are inadequate and badly contrived; there are no slop sinks for emptying bed pans, the w.c.'s being used for that purpose, and the w.c.'s have no ventilated lobby, but are entered direct from the ward corridors. The operating room is badly placed, the only access to it being past the kitchen premises. The hospital is heated by open fires, supplemented by low pressure hot-water radiators. The cost was approximately £5,000: the architects were Messrs. Tulloch and Fitzsimons, of Belfast. (See plans, p. 286.)

WARDE ALDAM COTTAGE HOSPITAL was erected in 1911 for the Carlton Main Colliery Company, and is on a Y-shaped plan, with southerly aspect for the wards. The accommodation is for twenty beds—a male ward for twelve beds, a female ward for six beds, and two private wards. The sanitary arrangements are near to the ward entrances and have no ventilated lobbies: although these were originally contemplated they were cut out on account of the extra expense. The arrangement of the large wards with the duty room between them is undoubtedly the most economical plan for administration. The operating room has a good north top and side light and anaesthetic and sterilising rooms. The kitchen and offices are in the east wing, one floor high. On the first floor of the administrative block are eight bedrooms, bath room and w.c., and housekeeper's sitting-room. The floors of the operating department and the ward kitchen are of terrazzo; all the other floors of terralith, including the wards, and the architect tells me he much regrets these were not of teak. The cost of this hospital was £4,325, including £517 for the laundry and mortuary. The architect was Mr. E. Holdsworth Walker. (See plans, p. 287.)

COCKERMOUTH COTTAGE HOSPITAL.—This interesting little hospital is built on land in Park Lane, presented by Lord Leconfield, with solid brick walls and roughcasted externally. The entrance is well arranged on the west side, leaving the whole south front undisturbed for patients. The large wards are 21 feet by 20 feet and 11 feet high, and the administration rooms generally 8 feet high. The floors on the ground level are solid and raised about 18 inches above the surrounding ground. There is a splendid verandah, facing due south, for the use of patients. The building was completed in 1915, Mr. Guy Dawber being the architect. (See plans, p. 285.)

ST. ANDREW'S COTTAGE HOSPITAL was built in 1901 on a sheltered site with a sandy subsoil at the east end of Abbey Park, and facing almost due south. The plan is compact and well arranged, of a T-shape, with the wards on the southern side. There are four-bed and two-bed wards for each sex and a four-bed ward for children, all more or less with cross ventilation, but the sanitary annexes are not well arranged. On the ground floor is the matron's sitting-room, a committee room and a surgery, used also as an operating room. The kitchen and laundry are on the north side on the first floor; besides a ward for female and one for children are the matron's and nurses' bedrooms. The windows of the wards are double-hung sashes with fanlights over, taken well up to the ceilings; the walls and floor of the surgery are tiled, and all angles are rounded; the main walls are of stone two feet thick, and the roofs covered with slate. The mortuary and ambulance building is isolated and entered direct from the main road.

TONBRIDGE COTTAGE HOSPITAL was erected by public subscription in 1907, on an ample site high up and overlooking the town. The administration section was first built and used temporarily as wards, and later on were added the operation room and the two six-bed wards in ground and first floors.

Each ward is 24 feet by 20 feet and 12 feet high, warmed by open fires and radiators ; the walls and ceilings are finished with Keene's cement painted, and the floors covered with jointless composition flooring ; the bath room, sink room and w.c. are all well cut off by a cross ventilated lobby. Adjoining each ward is a nurses' bedroom, with a small window overlooking the ward. The kitchen, offices and nurses' sitting-room are on the ground floor, and in the basement is a small laundry, a mortuary and heating chamber. The total cost of the building was £3,168, and the architect was Mr. Little, of Tonbridge.

THE WEIR COTTAGE HOSPITAL, BALHAM, erected in 1913, can by no stretch of imagination be properly called a cottage hospital, as although there is only one floor of wards, and these only contain thirty beds, it is suggested that eventually another floor may be added, bringing the total up to sixty beds. The scheme is interesting as being one of the most recent additions to hospital planning, and on the lines of a small general hospital, with the wards in one-floor pavilions on the north of the administration building, with an out-patient department at one end and the kitchen department at the other. For a cottage hospital for thirty beds the plan seems very extravagant : funds seem to have been very plentiful and everything done regardless of cost. On the ground floor are a waiting room, secretary's office and board room, an out-patient department for fifty patients, quarters for a resident medical officer, a kitchen department with servants' hall and nurses' dining room. On the first floor are eighteen bedrooms for nurses and staff. There is a separate block for operating and X-ray work, an isolated block for observation ward. The details of the plan are carefully worked out, but the dispensary in the out-patient department seems to be difficult of access for in-patients' medicines. There is no access to the operating room without passing through the anæsthetic room, and this latter is entered direct from the ward corridor. The exit for the out-patients past the board room is not good and the servery to the kitchen is not very well arranged. I believe the only reason for labelling this a cottage hospital was to get over a legal quibble, as by the terms of the late Mr. Weir's will a "cottage hospital" was given to Balham. The architect was Mr. Thomson, of Wimbledon.

I would like, before closing, to thank all those gentlemen who have so kindly lent me their drawings.

DISCUSSION OF THE FOREGOING PAPER.

Mr. JOHN W. SIMPSON, *President*, in the Chair.

Dr. S. VERE PEARSON (of Mundesley Sanatorium), in proposing a Vote of Thanks to Mr. Adams for his Paper, said that the subject had come very much to the fore in recent years. Cottage hospitals were being built all over the country. It was a set policy to build them, for several reasons. There was a movement, politically and industrially, for decentralisation. It had not gone very far yet, but the movement was growing, and had reflected itself in this direction, as in others. The medical profession during the last twenty years had seen a great development in the education of medical men. Practitioners were quite capable of performing operations which twenty years ago they would not have dreamed of attempting, hence there was a use for cottage hospitals which was not thought of a generation ago. Another point : it was hoped that, as time went on, the Garden City idea would be taken up, and that people who were treated in hospitals would have the benefit of country air much more than was now the case. That would only be possible by the development of the cottage hospital system. Another point : it was often easier to get

funds for a small local hospital than for a distant and more centrally placed institution. The Ministry of Health, and all who were interested in the organisation of the medical services, desired that the cottage hospital should take an important place in the medical services of the community. Therefore, this was a matter which it was very important to bring before this Institute at the present juncture. He could only say that Mr. Adams in his excellent Paper had dealt with the subject in a very practical way. If he might venture upon a word of criticism, perhaps Mr. Adams had not considered quite enough the question of cost. In the present-day need for economy one could not expect teak flooring, for example : the cost was prohibitive. He thought that, instead of teak or patent flooring such as terrazzo, plain concrete with a colour in it, and having where the chief part of the traffic comes a sunken area of $\frac{3}{8}$ inch in which was put cork lino, would be much less expensive, and practically noiseless. He was particularly interested to hear the points which the Duchess of Bedford put forward. Her Grace evidently spoke from practical experience. As

a sanatorium doctor and manager, he had always advocated fresh air, but he had had enough experience of cottage hospitals and sanatoriums to know that it was very uncomfortable for patients, whether they were receiving open-air treatment for tuberculosis or surgical treatment, to be in draughts. He agreed with the Duchess that it was possible to give patients ample fresh air without placing them in a draught. He was rather surprised to hear Mr. Adams give 11 feet as the height of a small ward. With the cost of materials so high, he thought the tendency should be to keep them lower than that. With regard to the finish of the wards, he had recently had some experience with the patent flat-toned paints, which had a surface very like ordinary washable distemper. With a plaster surface it was advisable to allow the plaster to dry well before application. It was often worth while to go to the expense of these flat paints. They had a nice tone and surface and were not injured by washing. With regard to the sanitary annexes, bedding and ward furniture, Mr. Adams tackled these matters in a very practical way, and he agreed with his remarks. Many cottage hospitals would have to be in districts where earth closets would have to be used: that must not be lost sight of. In a country site he favoured that system: it was a saving of expense, and, hygienically, could be made quite satisfactory. If cottage hospitals adopted that system, it was necessary to have a sink for rinsing out bed-pans after their contents had been emptied into the closet. Many patients came into hospitals to undergo an operation and were in bed during most of their stay. Therefore every facility must be given for the type of patient who could not go to the lavatory. He agreed with the Duchess of Bedford that pneumonia after anaesthetics and operations would be very much less rife if the fresh-air principles she recommended in regard to operating theatres were adopted. Wounds healed more quickly too with open-air wards free from draughts.

Dr. ARTHUR E. GILES, B.Sc., in seconding the motion, said he had been for many years exceedingly interested in the question of hospital construction, both general hospitals and cottage hospitals. He thought he had been a friend to the architectural profession, because in the case of three hospitals he had taken the initiative in urging re-building or enlargement. The first was the Prince of Wales' General Hospital, Tottenham, enlarged about the year 1903: the second, the rebuilding of Chelsea Hospital for Women by Mr. Keith Young, and the third, Welwyn Cottage Hospital, of which Mr. Adams had shown the plan. He should like to say how much he appreciated all the work and research which the preparation of Mr. Adams's paper must have entailed. It would prove to be rather a classic in the architectural world, so that people who wanted to know anything about cottage hospitals would look up Mr. Adams's paper. For a long time he had had the feeling that in hospital work there was a tendency towards unnecessary elaboration, which piled up the cost. For instance, take Charing Cross Hospital, where the doors to the operating theatre from either side were of solid marble slabs.

Could there be anything more futile in place of the ordinary wooden door? It was true that germs could not get through marble, but there were many other things less costly that they could not get through. There is, again, much unnecessary fuss made about the washing-up apparatus, and the arrangements for washing in operating theatres. The passion for having taps which could be turned on by the feet, knees, ankles—anything but the hands—was very far-fetched. Moreover, complicated apparatus often did not work well. There was a point about cottage hospitals in the future which was worth bearing in mind. In the past, there had been much provision for the hospital treatment of poor people, but very inadequate provision for middle-class patients. Wealthy people could have practically a private hospital set up in their house when they wanted an operation done: but the ordinary middle-class person was very badly off for this accommodation. In the future, if the matter was looked at aright, cottage hospitals would be a great help to the middle classes. If cottage hospitals with four to six beds for each sex of the poor had provision for about four middle-class patients, that would go a long way towards the upkeep of the hospital. People in the district suffering from a serious illness or who require an operation, instead of having to go to London or their nearest town, could be taken into their local hospital and have every proper attention, at a moderate cost. He believed that in the future ample provision would be made for middle-class people. One often sees unpractical things in a hospital. Mr. Adams pointed out a case where the verandah could not be used because the beds could not be got out on to it. And he spoke of the movable bath, an extraordinarily valuable idea, but which was much too heavy to move when it was filled for use. Every cottage hospital ought to have a proper verandah, where patients could get out into the air. Two things, however, were important. First, there must be proper exits, 3 ft. 6 in. to 4 ft. doors. Secondly, the beds should be on wheels and of such a size that they could be moved easily and brought bodily out on to the verandah without having to be taken along tortuous corridors. He entirely agreed with what Dr. Vere Pearson said as to the value of open-air treatment in cottage hospitals and other hospitals.

Mr. E. R. DOLBY, M.Inst.C.E., said that, as a consulting engineer, he had during the last 25 years devoted much attention to engineering in connection with hospitals, and had been associated with the distinguished author and a number of other eminent architects in this class of work. He would confine his remarks to the heating of cottage hospitals. Those who had studied the reports of the Fuel Research Committee would agree with him that before very long we should have an Act of Parliament prohibiting the burning of bituminous fuel in open fireplaces. It behoved architects and consulting engineers to prepare for that time, when we should only have available as fuel anthracite, coke and oil. The nation could not afford to continue to waste the by-products. He had a suggestion to make which would curtail the expense of

heating such a small place as a cottage hospital, with beds not exceeding 20 in number. He presumed there would be two large wards, one for males and one for females, with four or six beds in each. He suggested that a closed stove should be placed in the middle of the long side of each of these wards, and that the stove should contain a boiler. It should be closed on the inner side of the ward, with two doors on the outside, either to the open air, to a corridor, or to an adjoining room. The stoking and the removal of ashes should be done outside the ward. From the boiler, he should take a flow pipe to the ceiling or to the roof space, and run along and drop down to feed radiators in the single-bed wards and in the large ward, with a return pipe at floor level. The advantage of such a system was great economy in the expense: there was no cellar for the boiler house, and there was no loss from the boiler or stove, because it transferred its heat into the ward. Chimney breasts were not wanted, but a flue 9 inches by 3 inches in the thickness of the wall. If an exit were wanted for ventilation, a similar flue could be provided with an iron diaphragm between. This system did not involve bringing coal or ashes into the ward: that was done from the exterior, and stoking only required to be done twice a day. He submitted this suggestion for the cheapening of the heating arrangements of these small hospitals.

MR. W. A. PITE [*F.*] said he felt that Mr. Adams's Paper would be an immense help to local authorities who were about to build cottage hospitals: it would put them upon safe and sound lines, and they would know how to succeed. He was sure their younger brethren would welcome Mr. Adams's hints. The planning of a successful cottage hospital was no easy task. All the principles, all the difficulties that had to be faced in large general hospitals, had also to be met in the case of cottage hospitals: in both cases the whole of the planning must circle round the bed. All the conditions found in an ordinary house must be swept aside, we must do away with corners, and secure as many flat surfaces as possible. The buildings need not be unsightly, even if there were an absence of ornament, for the architecture of a hospital should be an expression of the plan.

The PRESIDENT, in putting the vote of thanks, said there were one or two points he should have been glad to see taken up. One was the question of cost. Mr. Adams had shown views of extremely cheap hospitals done by his (the President's) old friend and former assistant, Mr. Leslie Moore, which, as Mr. Adams said, did him enormous credit for the economy effected. But those delightful hospitals erected for £1,000 or £1,250 were things of the past: we had to pay more than that now for labourers' cottages. What were we to do to reduce the cost of construction? He thought that, especially in hospital construction, perhaps also in educational work, we might get to work to consider whether it was now necessary or advisable to erect buildings which were to last for two, three, or more centuries. Hospitals and educational buildings were more or less out of date as soon as they were built, and

new knowledge and fresh experience were continually suggesting new ideas and new methods. We might, therefore, well consider whether a hospital should not consist of essentially two sections: first, the permanent administrative section, of which the requirements would not alter very much—a bedroom, for instance, would be much the same a hundred years hence. But the wards and the nursing part of the hospital might be erected of some light temporary material, sufficient to afford protection from the weather, and they might be scrapped every ten years. The buildings could be put up very cheaply and designed to meet the latest ideas and methods. One point mentioned by Mr. Adams gave him something of a shock—viz., that the isolation of the w.c. block was no longer looked upon as important. As an old hand he should want a great deal of persuading before he accepted that as a sound principle to adopt. With modern plumbing, to cut off the bathroom was not necessary; but they should hesitate long before interfering with the isolation of our sanitary arrangements. Dr. Giles touched upon a point which must come home to all of us—viz., the extraordinary importance of cottage hospitals for the middle classes. The possibility of getting nursing, especially for surgical cases, for the middle classes—for the civil servant, the officer, the man of moderate means who has suddenly to undergo an operation and is faced with the enormous expense of a nursing home—is a serious matter: if anything could be done to meet the needs of the middle classes in cottage hospitals it would be welcomed by the whole community.

MR. PERCY ADAMS, in reply, referred to Dr. Pearson's suggestion as to sinking the concrete floor in the centre of the corridors where the traffic was heaviest and laying linoleum there. That was done in Germany, in their artificial staircases: they put a strip of linoleum in the tread with a brass edge round it. The German State Architect had told him that it was most effective. In ten to fifteen years they took up the linoleum and put a fresh strip down. Stone staircases, when worn down, were almost impossible to renew, but if a fresh wearing surface was put down every ten years or so, it was very satisfactory. In the corridor, too, this method was excellent: it was quiet and was better than the jointless floors. Dr. Pearson apparently disapproved of teak floors for cottage hospitals on account of expense. He (Mr. Adams) had only suggested teak as one of the materials for floors: he had mentioned other materials too: it was not at all necessary to have teak floors. As to open-air wards, the people who objected most to these were the patients. One patient said "I don't mind dying, but do let me die warm!" Dr. Giles had referred to the new forms of tap: but the architect must not be blamed; he was told to put in these things by the surgeons and doctors who wanted them. Mr. Dolby advocated a closed stove in the ward. It was undoubtedly very cheap, but the majority of patients hated a closed stove; they liked to see the fire, and he thought that wherever possible an open fire should be provided. With regard to planning, he would sug-

gest that all architects who build cottage hospitals should send plans, to one-eighth scale, to the Institute, where they could be filed in portfolios convenient for reference. Such a file would be found most useful, and he should be pleased to start it by sending thirty or forty plans.

Mr. WILLIAM A. PITE [*F.*] writes : —

The late hour precluded an extension of the interesting discussion of the Paper read by Mr. H. Percy Adams on Cottage Hospitals and upon which there was much that might usefully have been added. The consideration of the subject at the present juncture is one that is likely to serve a very useful public service, and Mr. Adams is to be congratulated upon the practical result of his labours. The exposition of cottage hospitals might possibly be thought to be of an elementary nature. This may in some sense be the case, but the elements concerned are far-reaching and somewhat elusive in character. The necessary data have to be diligently sought, considered and collated, and are matter for prolonged research calling for time and study. Hospital design has depths conditioned by departmental and administrative considerations which have to be co-ordinated, and naturally this is not to the hand of the uninitiated. The present time is calling for hospitals of a memorial character and also for extensions to existing buildings, most of which have to be retained and incorporated in some manner in the new scheme, so that architects in their several districts may be in request for commissions of this character and would do well to secure consultative guidance in a first essay of this nature. It is to such and to the authorities concerned, that Mr. Adams's excellent Paper will come with real guidance and service in the provision of cottage hospital accommodation in rural districts. It is therefore to be hoped that it will be possible for the R.I.B.A. to add this Paper to their growing collection of publications upon hospital architecture. All hospital planning is serious, and is not only fascinating but withal is altruistic in character, and, as has already been pointed out, demands upon the part of the architect wide knowledge of the requirements. But the planning of a cottage hospital is a thing quite apart from that of the large town hospital of which it most certainly is, or should be, a microcosm abounding with perplexities and necessitating the omission of characteristics which may not be considered to be essential or possible. One clamant essential, however, is always present and cannot be buried, and that is the practical unit in the plan—the patient in the bed—on whose account the whole organisation and administration of the little hospital is dependent. This is the true centre upon which everything radiates. A cottage hospital, however excellent, cannot possibly by any means expect to have anything like the maximum of amenities secured by its bigger relative of the town, but it is in that direction that it must generally orientate. Committee and staff may in most cases know but little of the actual requirements, but this lack of knowledge will in most cases be made up by active enthusiasm and interest, but they will need to

be shepherded with real knowledge by the architect, and there is generally at hand a keen professional physician or surgeon whose welcome assistance may be relied upon.

Mr. W. A. FORSYTH [*F.*] writes : —

At the close of Mr. Percy Adams's very interesting Paper upon Cottage Hospitals on the 14th instant, very little time was left for discussion. I should like to be allowed to add a word of appreciation of all the trouble and pains he took to give us so much information. It was especially interesting to hear Mr. Adams' criticism upon the collection of drawings which were displayed at the meeting. It was further gratifying to observe his optimism in stating the cost of these buildings at 2s. 6d. per foot cube. I was hoping, however, that something would have been said as to the future of cottage hospitals, because, from my recent experience on this subject, it seems to be generally understood that medical hospital practice is undergoing considerable changes, largely as the result of war experience and the consequent development of medical skill. Our President's trenchant observations were the only remarks which pointed in this direction, but he based his statements upon the question of cost. He hinted that cottage hospitals of the future would have permanent administrative buildings, and temporary wards which might be burnt down after a certain period of use. I find that this idea is gaining ground, but that it is not due to the question of cost so much as to the changes in medical requirements. Large numbers of practitioners have had special experience of the hut hospital during the war, and I have not met one yet who has said anything against their efficiency. Apart from their economical side they have advantages in lending themselves rapidly to extension, alteration and disconnection, yet conforming admirably with the sentiment of a cottage hospital. Such buildings have, of course, one storey, and in country places the site invariably is spacious enough to admit of their adoption. In large towns, having restricted areas, these forms of buildings are not so readily to be adopted.

There are four considerations which appear to me to be forcing a change in our outlook as architects towards cottage hospitals : (1) Cost ; (2) Changes in medical practice ; (3) Adaptability to alterations ; (4) Changes in nursing arrangements. With regard to cost, it is quite clear that the refinements of modern hospital building have to be given up, such as rounded corners as well as impervious and polished walls. In wards which are nowadays open-air places, I can see no objection to the use of unplastered brick surfaces, lime-washed or distempered. The only brick in general commercial use at the present time is one which does not lend itself conveniently to the retention of good plastering, but it offers an excellent uncovered surface which can be distempered. It is unnecessary to paint plastered ceilings for the same reason, and if these ceilings should be lathed with wood it is better that they should not be so treated. I know of one very important sanatorium where the greatest care was taken with the building. The tiling

on the roofs was bedded in mortar, the rafters were felted and boarded and the plaster ceilings were all painted: yet dry rot set in the timbers, because the air had thus been shut out of the roofs. It is unnecessary further to mention details where economy in cost can be effected. In any case, medical practice does not exclude the building of less permanent structures.

With regard to the changes in treatment of patients, I find that medical men are asking for smaller and more numerous wards. This is essentially consistent with cottage hospital design and will, I hope, have its effect upon future buildings. These one-storey buildings, besides coming within reasonable limits of expenditure, offer great advantages in the experimental lay-out of a cottage hospital and are especially economical in hilly sites. They lend themselves admirably to the inclusion of verandahs and if properly cross-ventilated can be reduced considerably in cubic capacity.

As to nursing considerations, it is now accepted that nurses are not required to work the long hours they have previously been accustomed to, and, in common with other workers, their pay must be proportionate to the general cost of living. A great deal is yet to be done in labour-saving details in nursing work: nurses' accommodation has largely to be increased.

Many of the plans that Mr. Adams exhibited showed the sanitary blocks in inconvenient positions and a long way from the beds, involving excessive fetching and carrying of nursing utensils. It is most important to centralise these places in relation to the beds. In conclusion, and in again expressing thanks to Mr. Adams, I feel his Paper must be regarded as a good closing chapter to the record of cottage hospital practice in this country. A Paper is now required dealing with its future treatment.

It appeared to me that all the drawings shown to the meeting, while representing much admirable work,

were really overloaded with architecture and were in a general way fettering and impeding the simple working of a hospital by the medical and nursing staff.

Mr. LESLIE MOORE [F.] writes:—

After hearing Mr. Percy Adams's excellent Paper on Cottage Hospitals, I feel the subject invites the following notes.

The term cottage hospital is elastic, but the "cottage" idea should, I think, always be kept in view; the more homely the building is the better, for the inherent prejudice of country folk to such institutions is thus overcome.

A high percentage of cases dealt with in a small country hospital are such that chiefly need careful nursing and dieting in hygienic surroundings which cannot be obtained in the working-man's cottage, and the function of relieving the larger hospitals of mild cases and convalescent patients who appreciate the possibility of being visited by friends should not be overlooked.

The necessary requirements for dealing with accidents and surgical cases are, of course, imperative, though much depends on the local practitioner as to the use made of the operating theatre.

More often than not the initial expenditure on the building is limited, and the problem of designing *multum in parvo* and eliminating the non-essentials of the larger type of hospital might well be further discussed.

The maintenance and annual cost of upkeep of the building is of great importance in the selection of materials, and in planning the possibility of extension should receive primary consideration.

The verandah doors at the Staines Cottage Hospital, to which attention was drawn, do permit of the beds and wheel-chairs being taken out on to the verandah, though the former have not wheeling casters. The staff bathroom and closet are shortly to be installed on the first floor, as originally planned.



COTTAGE HOSPITAL, WELLINGTON, SALOP (Leslie Moore Architect)

ARCHITECTURAL COPYRIGHT.

Counsel's Opinion.

The Practice Standing Committee had before them recently a case in which the circumstances were as follows :—

In 1919 a firm of architects, members of the Institute, prepared plans for a house which was duly erected: they subsequently noticed another house being erected to the same design, and on enquiry found that the plan for the second house had been submitted to the local authority by another firm of architects, not members of any professional body, and that with slight alterations it was a tracing from their drawing.

As the Practice Committee were not aware of any decisions yet existing for guidance in this matter, it was decided to recommend the Council of the Institute to obtain counsel's opinion. This has now been received, and on the recommendation of the Committee the Council have ordered it to be published for the general information of members.

Opinion.

An architect has copyright in :—

1. His original drawings and plans.
2. The building or structure constructed therefrom.

No registration is necessary in order to secure this copyright. Copyright may be infringed by

1. An unauthorised reproduction of the drawings and or plans.
2. An unauthorised construction of a building which reproduces in whole or in part the original artistic character or design of the copyright drawings and or plans and or building or structure.

The remedies for infringement are :—

1. An injunction to restrain the erection of any further building or structure not yet commenced which shall infringe the copyright. No order will be made to restrain the completion or order the demolition of a building already commenced. (Copyright Act 1911, Sec. 9.)
2. An injunction to restrain any further reproduction of the drawings and or plans.
3. Delivery up of all infringing drawings and or plans.
4. Damages or an account of profits. These are alternative remedies, and a plaintiff must elect which to take. The measure of damages would be an amount equivalent to the architect's fees which the plaintiff would have been entitled to if he had been employed in connection with the building.

An account of profits would in my opinion entitle the plaintiff to recover the net profits earned both by the architect and the builder in connection with the erection of the infringing building. A plaintiff would probably elect to take an account of profits.

The relevant provisions of the Copyright Act, 1911, are Sections 1 (3), 2 (1), 9, 35 (1), "artistic work," "architectural work of art."

If the facts are as stated in the plaintiff's letter, and if their plans had, as I assume they had, an original artistic character or design, an action lies at their instance against the firm of architects and the builders for an injunction, delivery up of plans, and an account of profits.

CORRESPONDENCE.

The Architectural Association School : Group Training

To the Editor, JOURNAL R.I.B.A.,—

SIR.—Mr. Selfridge's address at the Architectural Association on Commercial Architecture received wide notice in the public Press, and it is perhaps fortunate that Mr. Selfridge tactfully confined his remarks to the shortcomings of commercial patrons.

It is undoubtedly true that ignorant or indifferent patrons restrict the opportunities of architects, and may prevent them doing the best work that they are capable of; but can this be made an excuse for really bad work? Short of ignorant and dictatorial interference in matters of design on the part of the client, and weak acquiescence on the part of the architect, I cannot see that the client can be held responsible for really bad design. If all architects were fine designers in addition to their other necessary qualifications, it would be impossible for patrons to find architects capable of erecting bad buildings.

It is interesting to notice the quality of architecture produced in this country during the period of individualism which has prevailed now for nearly a century, during which every man has been encouraged to "express his individuality" in any style, or lack of style, he chooses. That fine individual work has been done no one can deny, but these efforts stand out as exceptions, and the average quality of work has been extremely poor, and far below the standard reached in previous ages.

I attribute this to lack of collective effort. The fine work of past ages was produced when tradition was a living force, and tradition seems to me to be collective effort and collective thinking; architects worked on parallel lines, were inspired by the same ideals, and accepted the work of their predecessors as a starting-point for further developments; the result was cumulative. In science we have these conditions operating at the present day; such as, for instance, mechanical engineering. Anyone who has watched a large complex machine at work cannot but feel astounded at its amazing complexity, and wonder how the brain of man is capable of such ingenuity. Yet this is not and could not be the work of one man's inventiveness; it is the cumulative result of many men's work extending over generations, every individual adding his small contribution, and in the end producing a result far beyond the power of a single individual to conceive.

In architecture independent individualism has had a good run, and has given us so much bad architecture that it seems necessary to look about for new methods. Is it not time to change our system, and to get back to collective effort? This is not possible under the pupilage system at present, because every office ploughs its lonely furrow and goes its own sweet way, regardless of what others are doing; but it is to large schools, such as that at the Architectural Association, that I think we may look for an improvement in this respect, because here we do get collective effort and collective thinking.

A school forms a tradition of its own, and when the students take their places in the profession as practising architects, we shall have groups of architects trained under similar conditions, inspired with common ideals, and influenced by a school tradition common to them all.

It is too early yet to see the result of this system in England, but judging by the results obtained in America, where this group education has been in longer operation, I feel confident that as soon as it has been given time to make its influence felt, the general average quality of architecture in this country will very considerably improve.

For this reason alone the Architectural Association school seems to me to deserve the whole-hearted support of the profession, and indeed of all interested in the welfare of architecture.

It is the largest architectural school in the country, it is run entirely by the architectural profession, and it is now compelled to issue debentures to the tune of £20,000 to pay for absolutely necessary extensions of premises. Need I say more?

G. GILBERT SCOTT [F.].

"Dynamic Symmetry in Ancient Architecture."

St. John's Wood, N.W.: 4 March 1921.

To the Editor, JOURNAL R.I.B.A.—

SIR.—Mr Hambidge's lecture finished so late on Tuesday night that many in his audience must have refrained from raising questions on which, had the time been opportune, it would have been of interest to have had the lecturer's views.

The relation of mathematical principles and geometry to design in architecture is, of course, no new thing and must have commanded attention since the day when primitive building developed into architecture. The various editions of, and commentaries on, Vitruvius and the writings of some, at least, of the Renaissance authors contain references to this aspect of architectural design, and even theories of its supposed connection with musical sounds and rhythm. The covering, or enclosing, of representations of buildings, in plan, elevation, and section, with squares, triangles, and circles has incidentally been productive of extremely beautiful sixteenth and seventeenth century woodcut illustrations of architecture, in addition to serving the more important purpose of showing in a

clear and simple way—what no one disputes—that the basis of architectural design, whether consciously or unconsciously, is geometric, and to that extent has its arithmetical side. I think it about as likely, as regards the general inception of designs in their earlier stages, to have been—in all ages—as much the latter as the former. All ornament and pattern-making—which monumental planning very largely is—is geometric, even though quite commonly evolved without definite consciousness of that fact. One can hardly imagine Bramante, Peruzzi, Raphael, and Michelangelo, when producing their varied and beautiful plans for the new St. Peter's at Rome, being concerned with mathematical or geometric ratios as such; and it seems to me there is great danger in setting aside—as discussions on mathematical principles in design inevitably tend to do—the idea of personal inspiration, controlled by judgment, as the basis of æsthetics in architecture. If, as regards Classic Greek remains, no two buildings are to be found alike, wherein consists the special significance of mathematical ratios as explaining ideal perfection of proportion? Which numerical standard are we to accept, moreover, to form opinions of the relative values of ancient examples, and for our guidance in the future? It is certainly difficult to conceive an inspired artist conjuring with figures to produce a masterpiece; nor do I credit Mr. Hambidge with thinking so. While however, there may be little parallel between the works of Ictinus, for example, and, say, Bramante, Vignola, Palladio, and our own Inigo Jones, there is reason to suppose, from the evidence of their drawings and work, that in the conception of the undoubtedly beautiful buildings they designed or produced they were not unduly trammelled, if at all, by ideas of numerical relations, or, shall we say, surd quantities. Whether their work can be regarded as of the static or dynamic symmetrical variety I frankly do not know, nor how such obscure distinctions are determined. If Wren in the case of St. Paul's, Dance the Younger in old Newgate Prison, and Elmes and Cockerell in their splendid St. George's Hall at Liverpool, did not, so far as we know, apply arithmetic ratios—apart from intuitive judgment and sense of proportion—in producing their buildings, why need we justify or explain the designing of Greek art, with its quite sufficient variety, on any such grounds? The subtleties of geometric spacing may quite appropriately be brought in to give perfection and exactitude to a design already freely conceived by its author, and may greatly assist, and partially explain, results arrived at in architecture. But its right place seems to be where our sole classic authority, Vitruvius, put it, to "determine those abstruse questions wherein the different proportions of some parts to others are involved"—in other words, to be a useful accessory and no more. Both architects and their sculptor *collaborators* will do well to resist any weakening of the position that a work of art is essentially the product of personal inspiration, knowledge, and judgment, and that, for that reason, the

sculpture of a Pheidias, Michelangelo, or Alfred Stevens was good because of the possession of such gifts or qualities by those men—the qualities, in fact, to which we must ultimately revert to explain all really great art, and which, in what constitutes its essential value, can certainly never be the product of any mechanical or mathematical system.

There may be, and probably is, a variety of opinions about these things. There can be only one as to the beauty and value of Greek art in its finer phases. Mr. Hambidge, in directing attention to it again, even from the special standpoint he has selected, earns the gratitude of all who care for

“Fair Greece! Sad relic of departed worth!
Immortal, though no more!”

If some of us are inclined to urge views which may seem in conflict with what we understand, or perhaps imagine, his to be, he will, I am sure, believe we are still not other than appreciative of his labours in the cause he has chosen, and the definite value of any work which stimulates interest in a subject of supreme æsthetic importance—Faithfully yours,

FREDK R. HORN [F.]

Common Sense in Building Construction (p. 261)
To the Editor, JOURNAL R.I.B.A.—

SIR,—From Mr. Robertson's letter it would appear that I must have failed completely to make my meaning clear: but the point at issue seems to be comparatively simple. If the upper floors of cottages are to be designed to a factor of safety of about 7 (1,000 lb. per square inch) under a *minimum* load over the whole floor, such as would be caused by auction sales, stacks of root crops, or coal, then obviously the whole of even our old standards must be revised, even Tredgold. If, however, it should be considered reasonable to design for normal loads, with a factor of safety to deal with abnormal loads or mis-use, then data of real normal loads are desirable, and a photograph of a bedroom carrying 28 lb. per square foot over its whole area would be instructive. The floor loads in offices are scarcely lighter than those in bedrooms, yet the investigation of the super-loads in the rooms of three office buildings in Boston, U.S.A., including the greatest known number of occupants, fittings, books, and all furniture, except safes, gave an average of 17 lb. per square foot. Twenty-six per cent. of the rooms exceeded 20 lb., and 12·4 per cent. exceeded 25 lb. The heaviest *local* loads were found to be full bookcases and nests of drawings drawers, the latter weighing about 52 lb. per foot super, 3 feet high when full.

But, whatever may be the standard of strength or stiffness, and whatever may be the floor loading assumed, the important point to the architect is that if the span be halved, whether by a wood or steel beam, or by a partition, then one-half the timber required for floor joists is immediately saved; because for any given loading per foot super, any given stress, and any given ratio of deflection to span, the depth of joists—

and therefore their cube—must vary directly with the span.

It should, perhaps, be pointed out that the floors shown do not weigh 10 lb. per foot, as stated by Mr. Robertson.—Yours etc.,

P. J. WALDRAM, *Licentiate*.

* * * Attention has been drawn to a remark at the end of Mr. Waldram's letter in the JOURNAL for 29th February replying to criticisms on his article “Common Sense in Building Construction” (JOURNAL, 5th February).

“It is somewhat unfortunate,” Mr. Waldram says, “that the Ministry of Health Specification permits alternative sections, but of equal *area*, not of equal strength or equal stiffness.” A correspondent points out that Mr. Waldram in making this statement ignores altogether the words “and suitable depths” in the opening paragraph of Clause 90 of the Ministry's Specification, which reads: “Construct the wood floors with joists of the following scantlings or with joists of equal area *and suitable depths*.” The clause then specifies the depth in inches (for lengths of bearing ranging from 5 to 12 ft.) according to the breadth of joist.

It is understood that the Ministry have no objection whatever to beam floors, but encourage them, provided that the beams are calculated in connection with the recognised formulæ and that the joists are suited to the various spans as set out in the specification.—ED.

THE GARMENT OF LIFE.

Under the heading “Beauty Made and Marred,” *The Times* of the 15th inst. published an account of its Special Correspondent's interview with a group of artists who have sketched out a scheme for guarding and extending the demand of Beauty, i.e., to bring art from its present position on the mountain tops and to introduce it to the market place, to prove that art need not be confined to the picture gallery or museum, but that it should permeate all the details of our everyday life. The promoters are men whose names, *The Times* correspondent says, are household words, although they prefer to remain anonymous in case they should be suspected of self-advertisement. The following items show the scope of their proposals:—

(1) The preservation by the Government of the finest specimens of British sculpture of all periods in the United Kingdom, and the foundation of a museum, like the Trocadero in Paris, of casts of English carving, modelling, bronze work, etc., whereby a vast amount of irreplaceable art, which otherwise will have disappeared in 100 years under the ravages of time, would be saved.

(2) The formation of a Committee of Taste, consisting of painters, sculptors, and architects, irrespective of such bodies as the Office of Works and the Westminster Borough Council, who should consider sites for statuary, fountains, public shelters, seats, and kiosks.

(3) The formation of a Standing Committee of Designers, to be consulted in street decoration of Greater London on occasions of national and Imperial importance. The advice of this committee would be at the service of the Lord Mayor-elect of London in fresh and beautiful schemes for his progress through the streets.

(4) Any innovations for the beautifying of national feasts and ceremonies would be described by the Committee of Taste for the benefit of the public—to tell them of their character and show them their practicability.

(5) The execution by eminent artists, aided by their students, of frescoes in important public buildings, and the fostering of the cult of bright and luminous colour in such undertakings.

(6) The alteration of proportions and improvement of design in such street objects as lamp-posts, letter-boxes, sand-bins, railings, posters, the ground-floor elevation of public-houses, public bridges, flashlight advertisements, and in the dressing of shop windows.

It, say the promoters, this programme seems here and there to touch on ground already covered by art guilds and societies, nobody should conclude that those who have drawn it up wish to ignore other pioneers. On the contrary, they insist on the value of their work and the talent they draw upon. At the same time, they observe that the Government and official bodies generally do not avail themselves of this reservoir of artistic help; and they aim at establishing a recognised relation between Government and some consultative Department of Taste.

"Take the cathedrals, to begin with," said one. "A great deal of deterioration is going on there. If we are not careful we shall find it too late to tackle them. For example, the west front of Wells. People are apt to be afraid of meddling with work of that kind—first, on account of the cost, then of the risk of spoiling by casting for records. But it has been done all over the Continent, and it can be done here. Reims Cathedral should warn us of the need of preserving casts of fine sculpture. Much that has been destroyed there cannot be replaced, because they do not possess the moulded records."

"Town planning," another put in, "is a second big way in which the committee could assist. Here we could take a lesson from the Americans in Washington. Washington, I believe, was designed by a French architect, and they are developing it to this day on the lines he laid down. Our great opportunity came after the Fire of London—and we lost it. If Wren's scheme had been carried out, London would have been the most beautiful city in the world. When we pull down Charing Cross bridge we shall get another great chance. Surely those who make it the aim of their lives to look for beauty—surely they could lend a hand in seeing the chance is not missed. If the people understood architecture they would be better able to keep a proper eye on their own interests in these things."

"Why don't people understand architecture?" I asked.

"Perhaps that is the fault of the architects. I mean the architects have failed recently to set us a standard. There is nothing to go by. Why, the very word 'art' means to thousands nothing but painting. To most folk pictures, and pictures alone, are art. Yet painting enters far less into the public life than architecture."

In *The Times* of the following day the same Special Correspondent writes:—

It is possible that from the proposals above outlined may begin a renaissance of the appreciation of art by the people. Their potential importance has already been reached by distinguished men who are—at present—outside the movement.

Yesterday, for example, I went to see Mr. John W. Simpson, the President of the Royal Institute of British Architects. Mr. Simpson is peculiarly fitted to discuss the connection between beauty and utility. It is his life work to plan beautiful buildings for an everyday purpose, and

two examples of his work that hang on the walls of his office crystallise that work. They are the designs for Haileybury College and Lancing College, and every line goes to show how it is possible to make the useful at the same time beautiful. He began by referring to the proposed Committee of Taste.

"Such an idea," he said, "is admirable. So long as official bodies have the ordering of our public monuments, so long will there be no taste in the monuments and the choice of their sites. Moreover, there will never be economy." The formation of a committee of men to take their place who really understood their business would be an undoubted boon.

"With regard to the improvement of common objects," he continued, "no one with any artistic sense at all can deny that it is very necessary. Personally, however, I find it rather difficult in some cases to separate beauty and utility. If an object carries out its functions in the best possible way, even though it may not be intrinsically beautiful, then I think that that object is a work of art. A battleship is a work of art because it carries out its functions in the very best possible way. Take a letter-box, for instance. I think a letter-box is a very beautiful object, because it is so exactly fitted to its purpose. It is round—for the safety of the passers-by. It has a curved top in order to drain off the rain. It has a firm base, a flap over the aperture to keep letters dry when they are being put in on a wet day. There is nothing superfluous at all. To my mind our British letter-boxes are infinitely more artistic than any to be found on the Continent.

"For our lamp-posts I cannot say as much. Those in the suburbs are too plain, and some of the more ambitious ones in the city are too ornate. The average English railing is a very ugly creation. With regard to posters, I must admit that the average hoarding is not exactly an object of beauty. I think, however, the Underground Railways have been to a certain extent the forerunners of the Committee of Taste in that matter. Nearly all their posters are in good taste, and some of them are undoubtedly works of art."

Mr. Simpson also admitted the need of improvement in the planning of public-houses. He pointed out, however, that at last steps were being taken in this direction. The Institute of which he was President had recently received applications from the Worshipful Company of Brewers asking for plans for the erection of an improved form of public-house. A competition had been held, and the result of that competition would soon be announced.

"Personally," he added, "I hope that any improvement will take the direction of increasing the comfort of the buildings and their window-space. The nearer we approximate to the style of the Continental café the better I think it will be."

"Finally," said Mr. Simpson, "I would like to make one suggestion. It is proposed that the Committee of Taste should be composed of painters, architects, and sculptors only. I fully agree that there should be no officials on such a committee, but I do think that it would be wise to add to it a few people who are not artists, sculptors, or painters. In America, where in many cases a somewhat similar idea has been put into practice, it is always customary to have laymen on such a committee."

A third article by the same writer appeared in *The Times* of the 17th inst. :—

None are more zealous, he says, for the beauty of London than certain members of the Royal Academy. I have talked

with nobody keener on the larger organization of art than Sir Reginald Blomfield, R.A., the distinguished architect.

There was no need to explain the scheme to Sir Reginald Blomfield. He told me at once that he had read both the articles which have appeared in *The Times*, and cut them out to be kept for reference. The whole subject, he went on, was extremely important, and must be dealt with sooner or later—probably sooner. Then, with a smile: "I cannot indicate my opinion of its importance better than by telling you that when I read the first article I said to myself, 'These people are up against a bigger thing than perhaps they are aware of.' The issues, indeed, are so far-reaching that they cannot be dealt with in any summary way."

When I pointed out the tentative nature of the proposals and the value of representative views on them, Sir Reginald Blomfield eagerly assented. "We want expressions of opinion all round, to try and arrive at what is really best for the arts. To my mind it is the duty of those who realize the seriousness of the question to say what they think. We artists ought to be grateful when a paper like *The Times* directs public attention to the relation between art and the community. It is so seldom that art receives any attention."

"On the subject generally," he continued, "the alternative seems to be between a Ministry of Fine Art—to which some of us are strongly opposed—and an Advisory Commission on the lines of the American Fine Arts Commission at Washington. This is limited in number, and composed of the most representative men they can get hold of; it is consulted in all important matters of art affecting the public. I hold strongly that, if such a body is to have any real weight and authority, it must be limited in number. A great deal hangs on that condition—probably more than meets the eye; and the majority, at any rate, of any such body should be trained and competent artists."

"You agree that the people and the arts are not sufficiently related?"

"That is the very point of the matter. The scheme which is set out raises the whole question of the relation of the State to the arts. There is no doubt that this relation requires further definition than it has at present. Not that this means any stringent State control. The regeneration of the arts of France in the seventeenth and eighteenth centuries was very largely due to their complete reorganization by Colbert in the reign of Louis XIV.; but the conditions are so different now that this analogy hardly holds, and the situation requires to be controlled very carefully."

Sir Reginald Blomfield went on to say that the time had come for taking up the subject seriously. But it was very important—vital, in fact—that the opinion of practising artists should be taken. Our English habit was to hand over these things to the amateurs. Yet the beauty of our streets, our squares, our public buildings affected future generations much more than local politics. The amateur, called on to deal with questions of art, made mistakes because he was not familiar with the practice of the arts and their limitations and conditions. The opinion of practical artists ought to be taken. Such problems should not be settled over their heads, for the control of the arts was involved. The Royal Academy was the proper body to be consulted.

OBITUARY.

Arthur Hill [R.F.].

Arthur Hill was born in Cork on the 8th June 1846. His father, Henry Hill, also an architect, sent him early to the local School of Art, while a little later he attended a private school for his general education, proceeding afterwards to Queen's College, Cork, where he graduated Bachelor of Engineering in the year 1869.

About this time he went to London, and served for a short time in the office of the late Thomas Henry Wyatt, who was then building the Liverpool Cotton Exchange. Outside pupilage facilities for the study of architecture were few in those days. My father, however, went to University College, where he sat at the feet of Professor Hayter Lewis, and gained, in 1868, the Donaldson Silver Medal. He became a Life Student at the Royal Academy, but, I think no classes were held then. However, the Silver Medal was awarded to him in 1871 for his measured drawing of the round part of the Temple Church. I believe he attended a design class at the A.A., of which he became a member in 1867, and he also spent a considerable amount of his time drawing at the West London School of Art.

The sketching *furor* of the period did not leave him unscathed, and he made several Continental trips for this purpose, chiefly under the guidance of Edmund Sharpe, of which an excursion to the West of France, ending in the publication by the A.A. of a book, *The Domed Churches of the Charente*, was the most notable. Indeed, the love of sketching never left him, and he was one of the most regular members of the A.A. Annual Excursion for the rest of his life. His most serious study of old buildings was, however, made in his native land, where he was deeply interested in ancient Irish architecture, and particularly in the Celtic development of the Romanesque. He made careful surveys of some of the best examples, publishing four monographs upon them, for which works he received two silver medals as an acknowledgment from the Institute. These were: Ardferd Cathedral, Co. Kerry (1870); Templenahoe, Ardferd, Co. Kerry (1870); Kilmalkedar, Co. Kerry (1870); Cormac's Chapel, Co. Tipperary (1874).

In the early 'seventies he also commenced to practise with his father, the firm being known as Henry and Arthur Hill. During the greater part of this period his work was strongly influenced by the Gothic revival, early French and ancient Irish features giving him his chief inspiration. Among the best examples of this period were the fronts of Nos. 31 and 80 Patrick Street, Cork; the former unfortunately destroyed in the burnings which took place last December, and the latter recently pulled down to make way for a cinema theatre. The Munster and Leinster Bank, at Kilmallock, Co. Limerick, is an example showing the influence of some ancient local work in its details. The School of Art, Cork (about 1885), was the last important work

carried out under the partnership, and in this I fancy Henry Hill took but small part. In this design Gothic gave way to the ideas of the Renaissance, and I do not think my father, except in some small church work, ever made use of Gothic details again.

Henry Hill died in 1887, after which my father practised alone for many years, carrying out some of the most important works that were done in the South of Ireland during that period. The Metropole Hotel, considerable additions to the North Infirmity, Victoria Buildings (considerably damaged in the recent burnings), Nos. 13 and 16, Patrick Street (both destroyed in these outbreaks), the *Cork Examiner* offices and printing works, as well as a great many shops and commercial buildings in Cork and the surrounding country towns, were done by him. He also did a considerable amount of small domestic architecture, of which the most important examples are the Red House, Castletownshend, Co. Cork, Redgarth (his own), and Lacaduv, in the suburbs of Cork.

In the year 1909 he took me into his office, and the Science Laboratories at University College, Cork, the Technical School and the Head Office of the Munster and Leinster Bank were among the chief works which we jointly executed prior to the outbreak of the war.

My father was always very zealous in the cause of Architectural Education, and held the post for many years of Lecturer in Architecture at the Queen's (now University) College, Cork.

In the year 1917 he retired from practice as the result of a very severe paralytic seizure, but after a slow and tedious recovery he returned to his pencil: and, in spite of very impaired powers, his chief delight still lay in designing "*châteaux en Espagne*."

He died on 24th February last, having finished his last little drawing only five days before.

HENRY H. HILL [A.].

Mr. ALBERT E. MURRAY, R.H.A. [F.], of Dublin, writes:—

I am glad to have been able to number the late Mr. Arthur Hill among my friends. Though we both lived in Ireland, strange to say my meetings with him were more frequent in England than here. He has stayed with me in Dublin: I have partaken of his hospitality at his charming villa in Cork, a villa designed by himself with all the real comforts of a real home, the planning of which reminded me of the work of the late Geo. Sherrin, who was such an able exponent of domestic architecture. Mr. Hill had a distinct personality, adhering, even in his dress, to old times rather than modern. He was an artist in every sense of the word, caring little for the business side of his profession. He was a constant attendant at the Architectural Association Excursions, and by his genial manners endeared himself to all who knew him. On these excursions he was generally accompanied by his friend, Mr. Noblett (who, though not an architect, took a great interest in the proceedings, to which he brought much life and spirit!).

It is to be regretted that Mr. Hill's practice did not lie in a locality that would have given him more scope for his talents. He had little opportunity of giving to the world the inspirations that he undoubtedly possessed. His last work was the rebuilding of the Munster and Leinster Bank in Cork, which has been illustrated in the building papers, and is a proof of what he could have done if opportunity offered. He was a master of music, played well on the organ and piano, and had a thorough knowledge of the art.

ALBERT E. MURRAY [F.].

Edmund Harold Sedding [F.].

Edmund Harold Sedding, of Plymouth, who died on the 21st February, had been a Fellow of the Institute since 1901. The son of Edmund Sedding, Architect, of Penzance, he served his articles with his uncle, John D. Sedding, Architect of All Saints' Church and Church House, Plymouth: All Saints', Falmouth, and St. Ewyn, Hale. In 1884 Edmund Sedding won the Royal Academy Medal for Measured Drawings, and in 1886 he carried off the R.I.B.A. Medal for his Measured Drawings of Grantham Church and of the Tower of St. Magnus the Martyr, London Bridge. These latter drawings are hung on the walls of the Black and White Room, Victoria and Albert Museum. In 1886 he took the English Travelling Studentship for Design at the Royal Academy, and in 1887 was awarded a special Pugin Medal for sketches. He started practice at Plymouth on the death of his uncle in 1891. The following account of his work appeared in the *Western Morning News* of the 23rd February:—

Mr. Sedding restored many churches in Cornwall, including St. Keverne, St. Mawgan-in-Meneage, St. Blazey, Marham-church, Lansallos, St. Ives (partial), St. Erme, Falmouth Parish Church, Morvah, Tremaine, Chacewater (reconstruction), Lanteglos-by-Fowey, and Crantock, near Newquay. The last mentioned was a notable achievement. The ancient collegiate church, refounded in 1224, was in a ruinous condition. Its restorer left it a thing of such beauty that many travel from afar to see its elaborate interior. Only two small fragments of the old screen remained, but they sufficed to enable a restoration of the whole to be carried out. Large additions were also made by Mr. Sedding to the Home of the Epiphany at Truro, and later the chapel was built from his design. The same year, 1907-8, Lis Escop (the home of the Bishops of Truro) was enlarged, and the chapel added during the episcopate of the late Bishop Stubbs. For that Bishop Mr. Sedding designed the diocesan staff. The crook and figures were executed by George Sedding, who was killed in the war. The wood for the staff was provided by Bishop Stubbs from the old Ely Cathedral stalls. At St. Germans Priory Church the great east window and the massive west door, with its bronze work, were carried out by Mr. Sedding for the Countess of St. Germans. Additions were also made by him to Ladock Church, and the towers of St. Gennys, Cardyham, and Fowey were repaired. The new chapel of the Truro Training College for Mistresses was also built about that time.

Careful restorations were made of the old Cornish screens by Mr. Sedding at Madron, St. Winnow, St. Budock, and the splendid coloured screen of a sixteenth century type at St. Buryan, where the detail is seen transfused with that of the Renaissance. New screens were designed for the churches of St. Stephen's, Devonport; St. Mary's, Highweek; St. Mary Magdalene, Launceston; Marytavy, Fowey (a memorial of Canon Purcell's jubilee as vicar), Stratton,

and St. Erth, and Netley, near Southampton. In St. Erth Church the south chancel aisle was very elaborately fitted up with reredos, altar, roof, screen, and carved benches in memory of the Hawkins family. In one bench-end is a careful portrait of Bishop Stubbs with mitre and staff in high relief. This, like very many of Mr. Sedding's designs in wood and stone, was carried out by Rashleigh Pinwill and Co., Plymouth.

Mr. Sedding's most important work was the new cathedral at Dunedin, New Zealand. In 1906 the Primate of New Zealand (Bishop Neville) selected him to make the designs for it, and two years later he was invited out to the Dominion to inspect the site. It is a commanding one, with a slope of no less than 22 feet in the length of the building, about 220 feet. The nave has been erected, and the full designs of the cruci-building, with a massive central tower, have been provided. Different kinds of Oamru stone have been used, and for the nave (which has cost about £30,000) and the vestries underneath materials have been used from the colony. The nave has many original features, and the west front is imposing. Over the west door effigies of Bishop Selwyn, Bishop Harper, and Bishop Neville have been placed in niches.

In Devon Mr. Sedding restored the churches of Dartmouth, Broadhempston, Sparkwell (reconstruction), Prince town, Marwood, and Kingston, and the elaborate reredos at Ermington. His design for the large and new church of St. Mary, Abbotsbury, Newton Abbot, won in a competition, was carried out at a cost of £10,000. The drawing was in 1910 hung in the Royal Academy. In 1907 Mr. Sedding partially restored the Norfolk churches of Haddiscoe and Wheatstone, the Suffolk church of Great Pricet, and the Essex parish church of Raylet, near Bowers Gifford. Work in Somerset included the complete restorations of Mark Weare (for Mrs. Luttrell, of Badgeworth Court) and Pawlett.

In 1909 Mr. Sedding published a volume on *Norman Architecture in Cornwall*, which is the acknowledged authority on the subject. Its preparation entailed not only much research, but the visiting of about 200 churches in the county. Modestly he described it as "a handbook of old Cornish ecclesiastical buildings." To it he added notes on 40 manor-houses and five castles in Cornwall, and a chapter on the Saints of Cornwall. An attractive feature of the book is 160 plates, reproductions of his own drawings. An accomplished draughtsman, he combined meticulous accuracy with artistic treatment. The volume is most valuable as a painstaking record of the Norman work remaining in Cornish churches after a lapse of eight centuries.

As a lecturing member of Plymouth Institution, Mr. Sedding gave addresses on church architecture, and for many years had been consulting architect for the diocese of Truro.

When the great war relieved him largely of professional work Mr. Sedding associated himself with Sir Arthur Pearson in promoting the St. Dunstan's Hostel for Blinded Soldiers and Sailors; and by addressing meetings in the North of England and in other ways he raised thousands of pounds for it. His enthusiasm for the scheme was enhanced by the fact that he was then very nearly blind himself.

In 1911, owing to failing eyesight, Mr. Sedding took into partnership Mr. Reginald Wheatly [F.], and on Mr. Wheatly's resignation, in 1914, Mr. Basil Stallybriass [Licentiate], who carries on the business at Plymouth.

MR. REGINALD F. WHEATLY writes:—

For an architect to lose his eyesight is one of the greatest misfortunes that can befall him. Edmund Sedding's sight gave way quite early in his career, and for years before his death was so bad that he could only make out large-scale drawings with strongly blacked-in lines. Many men would have given up work in despair, but his cheerfulness and optimism under this affliction and under other heavy troubles he had to bear were wonderful and endeared him to

everyone who came in touch with him. Very many of our West Country churches bear evidence of his taste and genius.

The picture of him left in my mind from my association with him is of his standing before an easel with a large magnifying glass in one hand and a soft pencil or piece of charcoal in the other, making a drawing somewhat difficult to decipher but which had always something worth while in it and which made one realise what a loss to church architecture his sight was: or, again, the picture of him climbing about among the roof timbers of a church or astride the parapet of a tower feeling the mouldings to give a date to them, with below the anxious, upturned faces of the vicar and churchwardens. He had a highly developed sense of touch, and used it invariably and most successfully instead of his eyesight when examining old work.

Much of his work was the restoration of West Country churches, and his method was always to retain every bit of old work that could be found—very different from the vandalism that some of the Cornish churches have been subjected to in the wholesale scrapping of the beautiful carved oak roofs and replacement with pitch pine. I have often seen him fighting tooth and nail with a committee to save a bit of an old roof, and he usually managed to get his way.

When one looks at his work in screens, reredoses, etc., such as at Crantock and St. Erth, a church restored by his uncle, John Sedding, one cannot help feeling that had he retained his eyesight he would have made for himself as great, if not a greater reputation in church work than his uncle.

He has been buried in Crantock churchyard beside the small country church which he transformed from a dilapidated barn-like interior into the beautiful interior it is now, bringing it back to its richness of former days.

REGD. F. WHEATLY [A.].

Dr. P. J. H. Cuypers [*Hon. Corr. M.*]

Pierre Joseph Hubert Cuypers, who died on the 3rd March in his 94th year, had been an Honorary Corresponding Member of the Institute for fifty-five years, having been elected in January 1866. In 1897 he was awarded the Royal Gold Medal in recognition of the excellence of his work as an architect. As far back as 1849 he had been awarded a gold medal for architecture in his own country. His first work was the restoration of the Minster of Our Lady at Ruremonde, and up to 1897 (when particulars of his career were obtained for the purposes of the Royal Gold Medal) he had built one cathedral and sixty-one churches and chapels, had restored fifty-seven ecclesiastical buildings, mostly cathedrals and churches, and built museums, railway stations, domestic buildings, monuments, besides his great work of the Royal Museum at Amsterdam. He was instrumental in starting schools all over Holland for the training of building craftsmen. It is stated that the celebration of his seventieth birthday was the cause of almost national rejoicings in

Holland. Besides the numerous honours conferred upon him by his own country he was the recipient of high distinctions from France, Spain and Belgium. The funeral ceremony was performed in the Cathedral of Ruremonde.

Lord Moulton [*Hon. A.*]

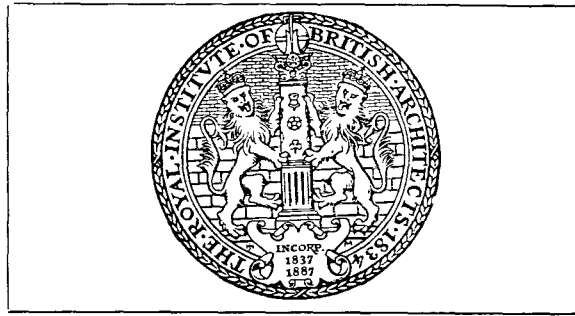
Lord Moulton, P.C., K.C.B., G.B.E., F.R.S., was elected an Honorary Associate of the Institute in 1883. When at the Bar he strongly advocated legislation to diminish the inconveniences and hardships arising from the law dealing with rights of light. In March 1900 he read before the Institute a paper advocating reform in the law, and afterwards joined the Committee set up by the Institute and the Surveyors' Institution to take steps to effect an alteration in the law. In June 1903, acting on behalf of the two Institutions, he introduced into the House of Commons an amending Bill. The decision of the House of Lords in the *Colls* case, however, readjusted the law, and the Bill was eventually dropped.

Papers of the British School at Rome.

Vol. IX. of the *Papers of the British School at Rome* has been received [Macmillan & Co., Ltd., 1920, 42s. net]. The first Paper consists of a biographical notice by Sir John Sandys of Dr. James Peddie Steele (4th May, 1836–16th July, 1917), one of the oldest and best of the friends of the School, whose kindness and hospitality, as well as his classical attainments, endeared him to many British scholars. Mr. G. F. Hill contributes a valuable Paper on the Roman Medallists of the Renaissance to the time of Leo X. In the third Paper the Director of the School, Dr. Thomas Ashby, gives some further information about the history of the Palazzo Odescalchi as the result of investigations made in the Boncompagni-Ludovisi archives by Signor Francesco Tomasetti. In the fourth Mr. Robert Gardner resumes his studies of the Roman road system of Southern Italy, and describes the highway running eastward from Rome to the Adriatic. The fifth Paper, by Dr. Ashby, is a contribution of a bibliographical nature to the study of the history of the famous collections of sculpture which adorned the city of Rome in the Renaissance period and which only began to be dispersed in the eighteenth century. In the sixth Paper Monsignor Mann, Rector of the Beda College in Rome, the historian of the mediæval papacy, gives the results of his studies of the portraits of the Popes, which have an especial value owing to the destruction of most of the series which adorned the basilica of S. Paul's-outside-the-Walls until the disastrous fire of 1823. Mrs. Arthur Strong, the Assistant Director, contributes three short Papers—(1) a Sepulchral Relief of a Priest of Bellona; (2) A Bronze Plaque, with a portrait of Aristotle, in the Rosenheim Collection; (3) Note on a Copy of the *Responsions* of Robert Parsons, which was the gift of Cardinal Allen to the learned Gerald Vossius. The volume closes with the Paper by Mr. H. Chalton Bradshaw [*A.*], Rome Scholar in Architecture, consisting of his Study for the Restoration of Praeneste, with reproductions of his drawings.

Books Received.

The Things which are Seen: A Revaluation of the Visual Arts. By A. Trystan Edwards, M.A. Oxon., A.R.I.B.A. So. Lond. 1921. 18s. net. [Philip Allan & Co., Quality Court, Chancery Lane.]



9 CONDUIT STREET, REGENT STREET, W., 19th Mar. 1921.

CHRONICLE.

Competition for Improved Type of Public House.

It was announced at the General Meeting last Monday that the Council had received the report of the President, Mr. John W. Simpson, who was appointed Assessor in the Competition promoted by the Worshipful Company of Brewers for a Type Design for a Licensed House in a Large Town, and that his award was as follows:—

Design placed first—premium of £300 awarded to the authors of design No. 14: Messrs. Curtis & Natusch and Messrs. White & George, 34 Bedford Square, W.C., Associated Architects.

Design placed second—premium of £150 awarded to the author of design No. 42: Mr. C. H. James, 19 Russell Square, W.C.

Design placed third—premium of £50 awarded to the authors of design No. 72: Messrs. Blount & Williamson, 5 Duke Street, Adelphi, W.C.

Special Mention—design No. 1: Messrs. L. G. Hannaford & H. G. Cherry.

The designs submitted in the Competition numbered altogether seventy-eight, and all are on view in the Institute Galleries until Thursday, 24th March.

The Architects' Welcome Club at the Building Exhibition, Olympia, 12th–26th April.

The Prince's Rooms at Olympia during the Building Exhibition next month are to be equipped as the Architects' Welcome Club which is being organised by the R.I.B.A., the Society of Architects and the Architectural Association. The accommodation will include two club rooms, where newspapers and technical journals will be available at tariff charges. There will also be a President's room, and an inquiry office where an official representative of the Club will be in attendance daily.

Tuesday, 12th April. — Opening day of the Exhibition and of the Architects' Welcome Club at the Prince's Rooms. All architects and their friends visiting the Exhibition are cordially invited to use the Club premises.

Saturday, 16th April. 3 p.m. — Reception of architects and other guests in the Pillar Hall by the Presidents and Council of the R.I.B.A., the Society of Architects, and the Architectural Association.

Friday, 22nd April, 6.30 p.m. for 7 p.m.—Public dinner in the Pillar Hall, when representatives of the Royal Institute of British Architects, the Society of Architects, and the Architectural Association, kindred professions, public bodies, the building industry, Government departments, and foreign architects, will be the guests of the Club. Tickets, not including wine, may be obtained from any of the Organising Secretaries, and, during the Exhibition, at the Club, by architects and their friends, including ladies, exhibitors, and any others who may desire to attend.

Exhibition of Students' Work.—An important and representative Exhibition will be held in the Large Conference Hall of Architectural Students' work. All the leading schools in the country will be represented, and various prize drawings of the year will be shown. The Exhibition will be open to the public generally.

Popular Lectures.—Two public lectures will be given on dates to be announced. Admission free. These lectures have been arranged for members of the public exhibiting at or visiting the Exhibition, to interest them in architecture generally, and it is hoped that architects will do their best to make the lectures known.

Research on Building Materials : Mr. Munby's Paper.

At the General Meeting of the 18th April, during the reading of Mr. Munby's Paper, "Research on Building Materials," some lantern slides, specially prepared and shown for the first time, will be exhibited, through the courtesy of the Geological Survey, of some of the building stones which the Survey Authorities, in conjunction with the R.I.B.A. Science Committee, have had exposed in London for ten years. The slides will show the condition of the stones at the beginning and end of this period. At a later date it is hoped that a report on the tests will be published in the JOURNAL, but this awaits further deliberations on the results.

R.I.B.A. Visit to Westminster Hall.

On Saturday, the 5th March, thirty-eight members of the Institute visited Westminster Hall for the purpose of seeing the progress of the restoration of the roof, this being the first of a series of visits to places of interest which is being arranged for members by the Art Standing Committee. The party was met by Sir Frank Baines, O.B.E., M.V.O., who, before taking the visitors up to the roof, gave an extremely interesting description of the work that is being done, illustrating his remarks by a model and by drawings which have been made of every part of the work and of the state in which the timbers were found. This was listened to with the deepest interest, and the Vice-President, Mr. Walter Cave, echoed the feelings of all present when he proposed a very hearty vote of thanks to Sir Frank for his address. The party was then shown—on the floor of the Hall—large baulks of timber which had been almost entirely eaten away by the ravages of the ant. On going up to the scaffold, the visitors were very deeply impressed with the mag-

nitude of the work. Looking at the drawings and the model gave but a slight idea of the enormous size of the timbers that have to be dealt with and the extraordinary difficulty in getting the new timber and reinforcements into position. The work is certainly being carried out most skilfully, and the result is extremely satisfactory in that none of the reinforcement can be seen and as many as possible of the original timbers are embodied in the new work. A description of the work and the manner in which the strengthening and restoration is being carried out has been so fully and so ably set forth in Mr. A. O. Collard's account of the Science Committee's visit to Westminster Hall in June 1919* that it is unnecessary to add anything further. Mr. Collard's description follows Sir Frank Baines's exhaustive Report to the First Commissioner of Works, which, with its wealth of illustrations, has been published as a Blue-Book,† a copy of which is in the Institute Library.

S. HURST SEAGER [F.].

The Times of the 15th inst. gave the following particulars of the roof and of the measures which are being taken to preserve the old timbers:—

The science of entomology has been called in to protect one of our noblest buildings. Westminster Hall, the splendid scene of many great events in our history, has been brought to the verge of destruction by a small beetle. It was built by William Rufus in the eleventh century, has a length of 290 feet, a width of 68 feet, and is 90 feet in height. Its massive buttressed walls seem to have been designed to carry a stone roof, but the first roof was of oak beams. These did not stretch the whole span but were supported by columns arranged to form aisles. Richard II. made many alterations, completed in 1399, and replaced the first roof by carved oak arches stretching the whole span. These have ripened to a rich golden colour and form the greatest glory of the Hall. Repairs were made from time to time, but it is an odd fact that the inserted newer pieces of oak, whether from some ill-judged attempt to "tone" them or from some difference in quality, have turned black.

Sir Charles Barry, architect of the House of Commons, examined the roof in the last century, found it defective, but appears not to have grasped the principle of construction or the extent of the damage, and merely added some unsatisfactory reinforcements of wood and metal. In 1911 it came under the charge of the Office of Works as a result of the Ancient Monuments Act. A full examination made by Sir Frank Baines, the official architect, disclosed an appalling condition.

It was only by a miracle that the roof had not fallen in; a catastrophe might happen at any moment. There was no dry-rot, but the ravages of the deathwatch beetle (*Xestobium tessellatum*), a little creature whose love-call has won for it its popular name, had turned the solid oak into a structure as spongy and friable as pumice stone. Many of the arches were feet out of alignment: joints were eaten through. Drastic steps had to be taken. Readers of *The Times* will remember the bitter controversy over the course to be adopted. The final decision was to retain the beautiful old carving, replacing it only where absolutely necessary, but to use it only as a mask concealing from the eye a new skeleton of steel which carried all the weight.

This was denounced by many as an architectural crime, a flagrant æsthetic dishonesty. But from the engineering

* "The Roof of Westminster Hall" (JOURNAL R.I.B.A., July 1919, pp. 205-7).

† *On the Condition of the Roof Timbers of Westminster Hall, with Suggestions for Maintaining the Stability of the Roof* [Cd. 7436.] 1914. 1s. 4d. H.M. Stationery Office.

point of view it was practical, and those who have had the pleasure of inspecting the portion already finished must agree that the old beauty has been preserved. But there was a further difficulty. The beetle, the real angel of destruction, was still present. The edible parts had been eaten away in much of the oak, but there were still occasional live adults and many grubs. These might complete the work of destruction on the old wood, attack the new, and destroy all the remaining tracery. And so in 1913 a scientific committee, containing architects, chemists, and entomologists, began to sit.

Many suggestions were considered. It was proposed, for instance, to seal the building and fill it with chloroform vapour. But it was doubtful if the poisonous vapour would penetrate the wood in any reasonable time, and uncertain if it would destroy eggs and chrysalides. And even if it were effective against the insects, it might have unpleasant effects on the town. The liberation of over a million cubic feet of a slowly dispersing poisonous gas was not an attractive idea. The application by spraying or painting of naphthaline dissolved in carbon tetrachloride was admitted to be destructive to the beetles, but would liberate an evil-smelling and highly inflammable vapour. Other proposals had to be rejected for similar reasons, and the committee dissolved without having reached a conclusion.

One of the members of the Committee, Mr. H. M. Lefroy, formerly Government entomologist to the Government of India, and then professor of the subject at the Imperial College of Science, resolved, almost as a forlorn hope, to try to work out the problem with his pupils, and to find an answer that would fulfil the rigid conditions. The substance would have to destroy the insects and yet be non-poisonous, non-inflammable, and have the least possible odour. Its effects would have to be relatively permanent. The risk of introducing rot by the use of an aqueous solution would have to be avoided, and the golden colour of the wood left unspoiled.

The first step was to investigate the life history of the insect, in the hope of finding some weak link in the chain which could most easily be broken. "Wild" beetles were found to live on oak and willow trees, and a fortunate chance discovered a stock of material for study. The adults can fly, but are very sluggish: it seemed probable that the pest had reached the roof as chrysalides or grubs in the old wood or in repairs. They themselves do not tunnel, but creep into chinks, especially where joints do not fit tightly. There they lay the eggs, and the grubs, as soon as they are hatched, begin to tunnel along the grain of the wood, eating out the softer parts. When they are ready to pupate they carry a tunnel until it is separated from the surface only by the thinnest film, often not much more than the patina of London smoke. There the motionless chrysalis rests, the metamorphosis is gone through, and ultimately the beetle emerges. It has then to break through to the surface, an easy task in fresh wood, but so difficult in old wood that many dead beetles were found just below the surface. A substance that would form a permanent repulsive film would keep any adult beetles from wandering into the crevices suitable for egg laying and, repelling the boring grubs from the surface, would force them to pupate so deep in the wood that the beetles could not break out.

After many trials, cedar wood oil, in quantities so small that it was innocuous to the human nostril, was found extremely distasteful to beetles and grubs. Solid paraffin suggested itself as a medium almost indestructible when exposed to London air and smoke, and in a thin layer so transparent as not to obscure the colour of the surface to which it was applied. The liquid known as di-chlorabenzene provided a solvent which gave penetrating power, and was almost absolutely unflammable and non-poisonous as a vapour. The formula was 92 per cent. of the solvent, 3 per cent. of soap, 3 per cent. of paraffin wax, and 2 per cent. of cedar wood oil. This is sprayed on every surface as it is exposed, on every separated piece of wood, old or new, and again on the finished surface when the reassembling has

been done and the steel fitted in. The di-chlorabenzene slowly evaporates, leaving behind a transparent film of wax impregnated with the oil. The newly treated wood undoubtedly has an odour, and the atmosphere of the Hall recalls that of the "doping" room of an aeroplane factory. But the wood that has been treated for some time gives off no appreciable scent, and has lost none of its golden colour. The work has been in progress for several years, and so far the treatment seems to be completely effective.

The City Churches.

The following Memorial is published at the request of the President of the Royal Academy and the other signatories of the Memorial:—

In June, 1920, the President of the Royal Academy invited the principal bodies in London representing architecture, art and archæology to confer together on the recommendations of the City of London Churches Commission, 1919. Twelve societies or institutions nominated representatives as follows:—

Royal Academy of Arts :	Sir Aston Webb, K.C.V.O., C.B., P.R.A.
National Trust :	J. Seymour Lucas, Esq., R.A. The Earl of Plymouth. Nigel Bond, Esq. S. H. Hamer, Esq.
Society for the Protection of Ancient Buildings :	Earl Ferrers.
Society of Antiquaries :	The Rev. T. T. Norgate. Sir Hercules Read, P.S.A. C. R. Peers, Esq.
Victoria and Albert Museum :	Sir Cecil H. Smith, C.V.O.
Royal Institute of British Architects :	John W. Simpson, Esq., P.R.I.B.A.
London Society :	George Hubbard, Esq., F.S.A. Sir Reginald Blomfield, R.A., Litt.D. Carmichael Thomas, Esq.
City Churches Preservation Society :	Edwin Freshfield, Esq.
London Survey Committee :	Philip Norman, Esq., LL.D.
Civic Arts Association :	Edward Warren, Esq., F.S.A. Arthur Stratton, Esq.
British Archæological Association :	Charles E. Keyser, Esq., F.S.A.
Metropolitan Public Gardens Association :	Bernard Gibson, Esq. Basil Holmes, Esq.

Conferences were accordingly held at the Royal Academy, and it was decided to submit the following considerations, recommendations and suggestions for the consideration of the Bishop of London:—

At a time when the worship of material success has secured a hold upon such large numbers of the people of this country, it is, in our opinion, a most dangerous policy for those in power to diminish the number of churches in a commercial centre like the City of London, where, whether in actual use or not, they do at least serve as reminders that there are other and worthier goals than the acquisition of wealth alone.

We feel strongly that an evil precedent will be created if the Church of England is a party to the destruction of monuments of the past which are irreplaceable; and we are glad to find that Lord Hugh Cecil, in his note appended to the report of the Commission, in some degree shares our misgivings on this point. Further, the fact that the monuments are churches on the one hand, and on the other that the consideration is a monetary one, will, in our judgment, react upon the Church itself in a mischievous way.

There is the further argument, set out by Mr. Edwin

Freshfield, that the churches built after the Great Fire were not a gift to the Church: they were rebuilt by taxation of the people, and they are supported by rating in lieu of tithes, a fact that is not brought out in the report of the Commission.

The City Corporation has entered a strong protest against the removal of these churches, and in our opinion far stronger reasons than those at present put forward are required to justify the destruction of these buildings and the disposal of their sites in order to erect churches in other places unconnected with the City, and for people whose duty it is to provide their own churches, and whose increased incomes should make it possible for them to do so.

Independently of the actual legal ownership of the churches, we consider it important to remember that in a sense they are the inheritance, not of the diocese of London, nor even of the people of this country alone, but equally of our kinsmen of the Colonies and Dominions, who are as a rule possessed of a more reverent spirit than ourselves for such memorials of the past, and who, it can hardly be doubted, will regard the proposed destruction with dismay and regret.

We are well aware that there is already throughout the country a tendency to destroy ancient remains, either through ignorance or from the prevalence of a too commercial spirit. If London were to set an example of such wholesale destruction as is now proposed, it would, in our opinion, have a fatal effect over the kingdom at large, and lead to the disappearance of much that is precious.

Although the fabrics of the churches are no doubt the main subject to consider, it has to be borne in mind, in addition, that they frequently contain memorials of distinguished citizens, intimately associated with the history of the City or of the country. Removal of the buildings would assuredly destroy the significance of such memorials, even if they continued to exist elsewhere.

There is further the question of the equipment of these buildings, not only of a structural character, such as woodwork, glass and bells, but more portable objects such as plate; in many instances these have been dedicated to the service of an individual church, and their alienation would involve the destruction of important historical data.

It is evident that, in the case of some churches, the great value of the site lies in the churchyards. These are at present protected by Act of Parliament; but it would be a flagrant reversal of the public policy of the last thirty years if these, almost the only remaining open spaces in the City, were to be covered with buildings. If and when such a proposal becomes imminent, it is certain that the public will enter a vigorous protest, quite apart from the question of the consecration of the land itself.

We recognise that the distinguished gentlemen who formed the Commission were amply qualified to decide upon the greater part of the issues involved; but we venture to demur, with all respect, to accepting them as authorities upon artistic and architectural questions. We think that our reluctance is justified by the suggestions in the Report (*a*) that in seven cases the body of the church should be demolished and the tower left standing, and (*b*) that in some cases the internal fittings might be preserved for use in another church. We regard both these proposals as architecturally and artistically improper.

In the same way we consider it is not a solution to remove and re-erect these churches elsewhere. It would be an artistic blunder to re-erect them in any surroundings not identical with the original sites. Archaeologically it would

be dishonest. Moreover, many of the churches in plan and construction would be singularly unsuited to the needs of a suburban parish.

For the foregoing reasons we desire to protest emphatically against the destruction of the nineteen churches scheduled by the Commission. We notice that the Commissioners used the phrase that "due reverence" should be observed in devoting some of these sacred buildings to secular uses. We would venture to say that to recommend the destruction of any one of them can hardly conduce to their reverent treatment.

ASTON WEBB, *Chairman*.

In July, 1920, this Memorial was forwarded to the Bishop of London, who has sent the following reply:—

FULHAM PALACE, S.W.6, *February 16th*, 1921.

DEAR SIR ASTON WEBB.—Thank you for your letter of the 14th instant, on the subject of the City churches.

I can assure you that no wholesale demolition of nineteen City churches is contemplated. At the present time I am giving my mind to the question of grouping certain of the City parishes, or the possibility of uniting them with poor parishes in the suburbs.

It is possible that some few may eventually have to be pulled down or removed, but this would only be done after grave consideration of every case and due regard to the general welfare of the Church at large.

While I hate myself to remove any old church, I cannot shut my eyes to the pressing question of the poverty of the Clergy, and the provision of the spiritual needs of people who have at present no church at all and no means of providing one.—Yours sincerely, A. F. LONDON.

The *Burlington Magazine*, Ltd., purpose addressing an appeal to the Bishop of London regarding the proposed destruction of the City churches. The appeal emphasises the importance of these edifices as works of art, and the hope is expressed that they may be allowed to remain intact and unutilised. It is believed that a formidable list of signatures might be effective in influencing the authorities to reconsider the matter of at least the more important churches, and the *Burlington Magazine* have sent a copy of the appeal to the Institute in order that members in sympathy with the movement may call in and append their signatures. The document is conspicuously placed in the Library.

The City Lands Committee and the Artistic Development of the City.

In the Court of Common Council on Thursday last Mr. Deputy Millar Wilkinson asked the Chief Commoner if his attention had been called to the articles and letters in *The Times* with reference to the establishment of a Committee of Taste, or a Ministry, or some other authority, to deal with the artistic aspect of the City, and if he could give any information on the matter.

Mr. J. R. Pakeman, C.B.E., answering the question in the absence of the Chief Commoner, said that the Corporation's attention had been called to this subject long before the articles appeared in *The Times*. In July last Mr. Deputy Bird moved the following resolution: "That it be referred to the City Lands Committee to consider and report to this Court as to what

steps should be taken for the artistic and architectural development of this City and for the preservation and permanent indication of premises of antiquarian and historical importance." The Court agreed, and the matter was now under consideration by the City Lands Committee. The present Chief Commoner and the City Surveyor, continued Mr. Pakeman, were both members of the Council of the Royal Institute of British Architects, and were in touch with that important authority with regard to the point raised. The City Lands Committee had already received a deputation from that Institute with reference to a branch of this most important subject. Mr. Millar Wilkinson could rest assured that the Corporation had the matter well in hand.

COMPETITIONS.

Renfrew and Rothesay War Memorials. Queensbury War Memorial.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competitions are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment, and meanwhile Members and Licentiates are advised to take no part in the Competitions.

ALLIED SOCIETIES.

South Wales Institute of Architects.

The Annual Dinner of the South Wales Institute of Architects was held at Cardiff on 10th March.

Mr. Ivor P. Jones [A.] (President of the South Wales Institute of Architects) was in the chair, and the guest of honour was Mr. John W. Simpson, President R.I.B.A., supported by Sir Charles Ruthen [F.] (President of the Society of Architects), Mr. F. R. Yerbury (Secretary of the Architectural Association), and Mr. T. Taliesin Rees [F.] (President of the Liverpool Architectural Society), who were the responders to the President's Toast of the Royal Institute of British Architects, the Society of Architects, the Architectural Association and the Allied Societies.

Mr. Ivor Jones reviewed the recent work of the South Wales Institute of Architects, pointing out the great increase of membership and the genuine awakening of interest in architectural matters in South Wales, and emphasising the fact that but for the wise guidance of the Royal Institute of British Architects, the sympathetic help of the Society of Architects, and the interest of the Architectural Association and the Allied Societies, the South Wales Institute could not possibly do the work it had done in the past and hoped to do in the future.

Mr. John W. Simpson, in responding for the R.I.B.A., pointed out that architects needed to keep before them the ideal of "good building" to be attained by a high standard of practice, and that they could, by seeking election on municipal councils, do a great deal for the community with their special knowledge, and also for the profession by showing the public that architects, because of their training, are practical men. He also laid stress on the need for a proper understanding between architects and builders, resulting

in good work, which would in its turn win the approval of the general public and so gain for architects generally the credit to which they were entitled.

Sir Charles Ruthen, responding for the Society of Architects, pleaded strongly for Registration, pointing out that other professions did not allow anybody to practise until he had proved himself capable and efficient, whereas the so-called architect was often an individual possessing no architectural qualifications, the result being a general lowering of the high standard aimed at by the profession.

Mr. F. R. Yerbury, responding for the Architectural Association, referred to the educational work of the Association and the South Wales School of Architecture, predicting a successful career for the latter under its able head, Mr. W. S. Purchon.

Mr. Taliesin Rees, responding for the Allied Societies, spoke of the decision of the R.I.B.A. to hold their Council meetings periodically in the provinces, a movement which would give the Allied Societies more prestige locally and greatly encourage them in their work.

The toast of the South Wales Master Builders' Employers' Federation was proposed by Mr. H. C. Portsmouth, F.S.Arc., in which he referred to the danger to the architectural profession through the activities of the Office of Works and the further waste of public money by a Government Department endeavouring to perform the impossible by acting as its own architect and contractor.

Mr. E. W. King, President of the Federation, responded.

Birmingham Architectural Association.

The last general meeting of the session of the Birmingham Architectural Association was held at the Society of Artists' Rooms, Birmingham, on the 11th March. The President, Mr. H. T. Buckland [F.] took the chair, and Captain G. Salwey Nicol [F.] read a Paper entitled "The B.A.A. Excursion to Bourges." The lecturer said that people often wonder why architects travel long distances and spend their leisure in studying such old buildings as the Gothic cathedrals, which seem to have no relation to the problems submitted to them by this material age. Stimulated by the enthusiasm of students, they sometimes visit an old city, and, fascinated by the glamour of age and the theories of archaeologists, they have some return for their trouble, but they return with the idea that making sketches of these old places is but an innocent hobby. This view is too superficial. They have not realised what a Gothic cathedral means. A great building such as St. Etienne at Bourges is probably one of the finest flowers of human civilisation. The lessons which can be learnt from such buildings will bear fruit when the materialism of the present day can be shaken off, and it is our duty in the meantime to keep alive that appreciation and respect for the great achievements of the past. The architects who journeyed to Bourges from Birmingham in the early summer of last year combined the delights of living in a fairly modern town with sketching the many examples it contains of buildings of various ages. The cathedral, which naturally formed the chief attraction of the pilgrimage, has an interior of five lofty compartments, arcaded and vaulted in stone, with that skill and grace for which the masons of the thirteenth and fourteenth centuries are so famous. The west front, in the evening sunlight, with its great stretch of steps, bearing its range of five open-armed portals and surmounted by two lofty towers guarding and supporting the great rose window, is a sight which cannot fail to impress the beholder. No finer opportunity for the display of stained glass can be found than the three continuous clerestories of

Bourges, which stretch from west to east without any interruption, for the plan is based on the simple lines of a Roman basilica. The whole of the windows are unfortunately not glazed with the original glass, but a considerable proportion remains, and enables it to vie with Chartres in this glorious possession. Such a pilgrimage as this is always too short, but one returns with delightful memories and with a number of sketches which will never let one forget the circumstances under which they were made.

Mr. Nicol illustrated his lecture with many water-coloured drawings, sketches and photographs made during the visit, and also with a number of lantern slides. At the conclusion of the lecture a vote of thanks was proposed by Mr. Arthur Harrison and seconded by Mr. J. Coulson Nicol, who himself showed a few lantern slides which he had obtained at Carcassonne and Albi during the visit.

Nottingham and Derby Architectural Society.

In order to stimulate public interest in architecture the Nottingham and Derby Architectural Society have for the past few years arranged a popular lecture to be given at the University College, Nottingham. Mr. Harry Gill was the chosen lecturer this year, and on Friday, 11th March, with "Newstead" as his subject, for over an hour he held the interest of a large and appreciative audience. He told not only of Newstead Abbey and its foundation, but of the history of the Byron family, of Robin Hood, and Friar Tuck, with ever and anon an interesting sidelight into mediæval craft-manship and devices of construction.

Alderman E. Huntsman, who presided, said that there was never a time when it was more necessary to cherish a love of the beautiful than at present. The college had, as one of its chief functions, the cultivation of such gifts.

Newstead, said Mr. Gill, was founded by the Austin or Black Canons. It was the third of the religious houses founded by King Henry after the murder of Becket. The title, "Newstead Abbey," was a misnomer, as Newstead was only a priory, and was occupied by canons and not by monks. When the dissolution of the monasteries occurred, the church was pulled down. Nearly the whole of the present house stands on and is incorporated with monastic walls. The west front, which still remains after six and a half centuries, Mr. Gill considered a tribute to the craftsmen of old. "Do not be led away," he said, "by the popular fallacy that these buildings were erected by the monks who had plenty of time at their disposal. They were not; they were built by craftsmen who had to earn their living. In this instance they came from York, completed the church in 1270 and went on to Southwell. Sir John Byron came into possession in 1540, and at once began to put it to secular uses. 'Practically every stone was used for utilitarian purposes.' In the course of the lecture, Mr. Gill said that he knew it had become the fashion to look upon Robin Hood as a myth. He thought it would be easier to prove the legend than to disprove it. Many names found in the records of Newstead, such as Robin Hill and Scariett Cross, were reminiscent of the outlaw.

The speaker went on to describe the discovery of a brass lectern, containing documents relating to the priory, which was recovered from the pond in the grounds, into which it had been cast. This lectern was now to be seen in the choir at Southwell.

Byrons had been associated with the neighbourhood long before they came into possession of Newstead. One, who came over with William the Conqueror, held the manor of Hucknall when Domesday Book was compiled.

MINUTES. X.

At the Tenth General Meeting (Ordinary) of the Session 1920-21, held Monday, 14th March, 1921, at 8 p.m.—Present: Mr. John W. Simpson, *President*, in the Chair, 41 Fellows (including 14 members of the Council), 49 Associates (including 3 members of the Council), 4 Licentiates, and numerous visitors—the Minutes of the Meeting held 28th February were taken as read and signed as correct.

The Hon. Secretary announced the decease of the following members: Lord Moulton, P.C., K.C.B., G.B.E., F.R.S., *Hon. Associate*, elected 1883; Comte Robert de Lasteyrie, *Honorary Corresponding Member*, elected 1904; Dr. Pierre Joseph Hubert Cuypers, *Honorary Corresponding Member*, elected 1896, *Royal Gold Medalist* 1897; Arthur Hill, of Cork, elected *Associate* 1866, *Fellow* 1887, placed on List of *Retired Fellows* 1918; Wm. Cecil Hardisty, *Fellow*, elected 1906.

The following members, attending for the first time since their election, were formally admitted by the President: Samuel Nathaniel Cooke, Spencer Carey Curtis, Austin Durst, Arthur John Clifford Ewen, William Herbert Hobday, Geoffrey Norman, John Saxon Snell, *Fellows*; and Frederick Ernest Crutchley, Thomas Francis Ford, Horace Herbert Laws, Simpson Low, James Macgregor, Percy May, Aston Charles Pickford, Lawrence Henry Shattock, John Stewart Thomson, *Associates*.

The Hon. Secretary announced the President's award in the competition promoted by the Worshipful Company of Brewers for a Type Design for a Licensed House.

Mr. H. Percy Adams [F.] having read a Paper on COTTAGE HOSPITALS and illustrated it by lantern slides, a discussion ensued, and a vote of thanks was passed to him by acclamation on the motion of Dr. Vere Pearson, seconded by Dr. Arthur E. Giles.

Mr. Adams having acknowledged the vote, the proceedings closed, and the meeting separated at 10 p.m.

Changes of Address

Messrs. H. Percy Adams [F.], Charles H. Holden [F.], and Lionel G. Pearson [F.] have removed from 28, Woburn Place, to 9, Knight-bridge, Hyde Park Corner, S.W.1.

Mr. S. Hurst Seager [F.]: London address, c/o High Commissioner for New Zealand, 415, Strand, W.C.

Messrs. David Barclay Niven [F.] and Herbert Wigglesworth [F.] have removed from Gwydir Chambers, High Holborn, to 7, John Street, Bedford Row, W.C. Telephone: Museum 1733.

NOTICES.

THE ELEVENTH GENERAL MEETING (ORDINARY) of the Session 1920-21 will be held MONDAY, 4th April, at 8.30 p.m., for the following purposes:—

To read the Minutes of the Meeting held 14th March; formally to admit members attending for the first time since their election.

To read the following Paper:—

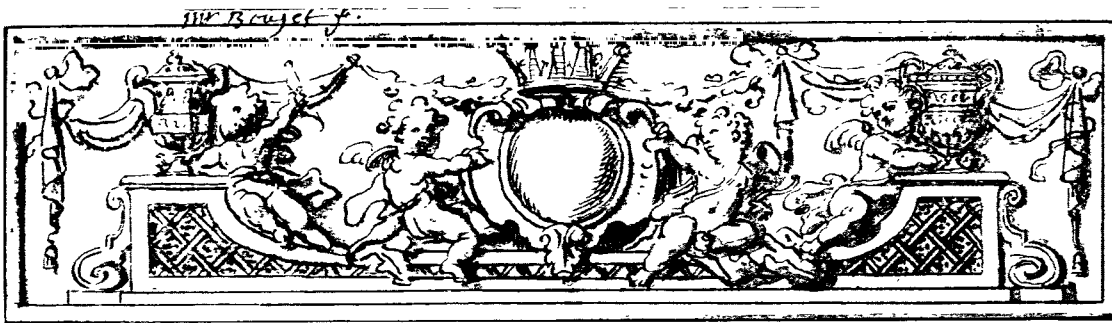
THE LANDSETTLEMENT BUILDING WORK OF THE MINISTRY OF AGRICULTURE AND FISHERIES.

By SIR LAWRENCE WEAVER, K.B.E., F.S.A.

WANTED: By a firm of architects and engineers in Hongkong, a young Architect or R.E.B.A. as Assistant, with a view to ultimate partnership. Good general knowledge of all branches of the profession, including design and supervision of reinforced concrete buildings. Full particulars from the Secretary R.I.B.A., 9, Conduit Street, W.

LICENTIATE also desires Partnership, London preferred. Twenty years' experience domestic work, housing and estate development. Can bring small practice to London Office. Apply Box 1631, c/o Secretary R.I.B.A., 9, Conduit Street, W.

A R.I.B.A. (29), at present in charge of large drawing office in India, desires change to London, owing to climate. Could be free shortly, provided reasonable salary and prospects assured. Previous experience and training in London. Full particulars and references. Apply to Box 421, care of Secretary R.I.B.A., or "Architect," care of Cox & Co., Bombay.



THE LAND SETTLEMENT BUILDING WORK OF THE MINISTRY OF AGRICULTURE AND FISHERIES.

By Sir LAWRENCE WEAVER, K.B.E., F.S.A. [*Hon. A.*], Director-General of the
Land Department, Ministry of Agriculture and Fisheries.

Read before the Royal Institute of British Architects, Monday, 4th April 1921.

THE relationship of Government Departments to the practice of architecture has long been the subject of discussion in professional circles. This is my excuse for devoting the greater part of this Paper to methods of organisation both at the Headquarters of the Ministry and in the County Councils on whom the administration of the main portion of the task was devolved, first, by the Small Holdings and Allotments Act of 1908, and later by the Land Settlement (Facilities) Act of 1919.

When I had the privilege of reading a Paper here as long ago as 19th March, 1906 on Leaded Spires, it was in my then capacity as an ironmongers' bagman, whose relation to the art of English leadwork was commercial as well as archæological. When I communicated to the Institute on 26th June 1911 a Paper on the Heirloom Copy of Wren's Parentalia, which now rests in our Library, it was as an architectural journalist. I now venture before you as that most suspicious of characters, an established civil servant, charged with the duty of carrying out the instructions of a Minister of the Crown. In all three capacities I have tried to sustain faithfully, as an Honorary Associate of the Institute, a practical sympathy with the aims of professional friends of long standing.

If I should appear to devote too much of my available time to organisation and too little to actual building, I suggest this ill balance is necessary if you are to understand the Ministry's attitude in a much-discussed matter, the employment of official architects both by Government Departments and by Local Authorities. The work of land settlement for ex-Service men is the outcome of a pledge given during the war to men in His Majesty's Forces and to women who worked on the land during six months of the war, a pledge clearly repeated at the last General Election, that those who had fought for the land should have access to it as small holders. This offer was, of course, subject to their being found suitable both as regards experience and the possession of enough capital. The administration of the Land Settlement (Facilities) Act of 1919, which gave statutory force to this pledge, divides itself into three main steps: (*a*) acquisition of the land; (*b*) its division into suitable areas to meet the varying needs of would-be small holders; (*c*) the adaptation of existing or the provision of new houses and farm-buildings.

The outbreak of war in 1914 suspended the small-holdings work of County Councils until after the Armistice, when the veto by the Treasury on the raising of local loans was withdrawn. During the war, however, considerable thought was given to the post-war problem of closer settlement on the land, and, as the result of the passing of the Small Holdings Colonies Act of 1916, the Ministry was empowered to purchase and equip up to 60,000 acres of land. Only 25,000 acres have been so acquired, part of which are in estates divided into small holdings and part in large farms under the charge of a Director on which the settlers work for wages and receive a share in any profits earned. With the development

of the work of County Councils, however, the Ministry has ceased to acquire new estates, and in accordance with the general principle of devolving all but essentially headquarters services on County Councils, some of its own estates will be transferred to them as soon as their equipment has been completed. I will refer later to the Ministry's own building operations: the work done through County Councils is of far greater volume and importance.

What, then, was and is the Land Settlement task of the County Councils, and how have they grappled with it? I give you the main statistics in round figures, because they have a direct bearing on the Councils' building programme. My figures apply only to England and Wales. The Scottish task is directed from Edinburgh. The total applications received between 1st January 1919 and 1st December 1920, when the list was closed, have numbered 48,340. This figure relates to ex-Service men only, as the settlement of civilians is for all practical purposes suspended. We expect that when all deductions have been made from that figure, due to unsuitability from lack of experience or capital, change of mind, unwillingness to wait until buildings can be completed, etc., the effective persistent applicants will number 30,000 or even less if agricultural conditions should develop unfavourably. Of these we have already satisfied up to date about 11,000. If, however, we include the men who have been settled on the Ministry's own Land Settlement Estates, and a limited number of civilians provided with small holdings by County Councils since January 1919, the grand total of settlers since we began our task is 13,314. Land has been acquired and will come into hand for division by the end of this year or later to settle approximately 6,400 more. We may therefore have to acquire from now onward about 160,000 acres in order to satisfy a balance of 12,600 applicants. When the task is finished we shall, therefore have acquired about 410,000 acres (or putting it otherwise, 640 square miles), including much of the best agricultural land in the country, and shall have in the process given 30,000 men a personal stake in agriculture, who had none before.

Let me say at once, that settling 30,000 men does not mean building 30,000 new cottages. In the first place, "small holding" is a term covering very widely differing things, varying from a plot of bare land of from 1 to 2 acres for market gardening or fruit growing to a 50-acre dairy holding equipped with a 7-roomed cottage, dairy and a complete range of farm buildings. The small holdings supplied have ranged in capital cost from £100 to £5,000, but we have lately reduced the maximum cost for any one holding, inclusive of land and buildings, to £2,500. The practice is, as far as possible, to provide the would-be small holder in the differing agricultural areas of England with the sort of holding he wants and is accustomed to work on. In the strawberry lands of Hampshire, in the gooseberry and currant country near Cambridge, in the plum districts of Worcestershire, and in the seed and bulb raising areas in various specially favoured districts, from one to three acres are as much as a man can cultivate himself, even with the aid of his family. In large parts of East Anglia, notably in Cambridgeshire, the Isle of Ely and parts of Lincolnshire, the small holder grows prosperous on from 5 to 10 acres of land devoted to potatoes, carrots, celery and green vegetables. He keeps no stock, and often prefers, in the fen country almost always and naturally prefers, to live in a village and cycle or walk to his holding. In other counties grass dairy holdings are in the majority: in others again, the small holdings are miniature mixed farms, partly arable and partly grass.

It is impossible to give any average size of holding provided except purely statistically, but taking England and Wales as a whole, the average is $13\frac{1}{2}$ acres.

I come now to the building problem, and here I must look back $2\frac{1}{2}$ years. We all supposed, I think, at the Armistice that building prices had reached their apogee, and looked for a drop when demobilisation brought men back to the building trades and to the manufacture of materials.

When, therefore, the Ministry, or the Board as it then was, was preparing the Land Settlement (Facilities) Act passed in August 1919, and was making its financial estimate of the cost of fulfilling the pledge, our figures were based on the then prevailing prices. My then Minister, Lord Ernle, and Lord Lee of Fareham who succeeded him in August 1919, about the time the Act was passed, were justified

in believing that we should be able to carry through our scheme on broad and comprehensive lines with the money made available by Parliament. It is obvious that small holders will do better if they are grouped on large blocks of land. They can organise themselves co-operatively for the bulk purchase of needful supplies, and can likewise bulk their produce for marketing and transport. It becomes feasible for the Government or a local authority or for private enterprise to provide additional transport facilities for a district which, from carrying a population of from 1 to 3 labourers per hundred acres, becomes closely settled to the extent of perhaps 20 families per hundred acres. With the scheme of closer settlement, therefore, were bound up both the improvement of rural transport and a vast increase of rural housing on large land settlement estates.

In September 1919 I was one of a Committee of five, representing the Departments mainly concerned, sent by the Prime Minister to Germany and Belgium to consider the interrelation of land settlement, the establishment of industries in rural districts, housing and transport. This we did, and a Development Committee of the Ministry of Transport has sat continuously since to carry into effect the lessons we learned. I need scarcely say that the exigencies of national finance have made it impossible to proceed with any of the improved transport schemes worked out. It is regrettable but inevitable. In the same way, my Department has been obliged to postpone until happier times the policy of extensive housing on large estates and to satisfy our applicants' desire for land with the minimum amount of building. This means the acquisition either of pieces of suitable bare land in or near the village where the applicant lives, or of small farms well provided with a farmhouse, divisible into two or three dwellings, and some cottages.

I must remind you that under the old Act of 1908 the County Councils were not allowed to undertake any small holdings schemes unless they were self-supporting. If they failed in this respect, a burden fell on the county rate, and this responsibility not only gave the County Councils a vivid interest in economy but justified, indeed almost compelled, the Board of Agriculture's policy of non-interference in anything but the financial issue of the Councils' schemes.

Under the provisions of the Land Settlement (Facilities) Act, the creation of small holdings for ex-Service men is a wholly uneconomic proposition. The Act placed £20,000,000 at our disposal to meet the capital cost of the scheme, and the Government also meets all annual losses. The main fact to bear in mind is that the Government is paymaster, and must, therefore, exercise the supervision I am describing to-night.

With loan money costing the Government $6\frac{1}{2}$ per cent. and with cottages costing from £750 to £1,000 each, and farm buildings in proportion, it is obvious that the annual cost to the Government of an equipped holding is largely in excess of what any small holder can afford to pay in rent and make a living.

I estimate that, roughly, eight millions is the measure of the irrecoverable expenditure which will not be represented by rentals after 1926, when the small-holdings undertakings of the Councils will be valued. Such a financial operation would be wholly indefensible, except on the soundest ground of all, viz., that a solemn national pledge has to be fulfilled.

When it became obvious in the summer of 1920 that the cost of building was not likely to drop but rather to go on rising, the Ministry established maximum scales of capital cost and of annual loss per holding to which every scheme submitted by County Councils was required to conform before it could be approved. Some of the estates purchased in our more optimistic days could not by any means be divided up and equipped within these maximum scales, but it has been the duty of my Department to examine most carefully and to cut down most rigorously every scheme submitted in order to reduce the losses to the lowest possible dimensions. In this matter the County Councils are the agents of the Ministry. They own the land, they equip it, they borrow the money, but the Government takes the responsibility for all losses.

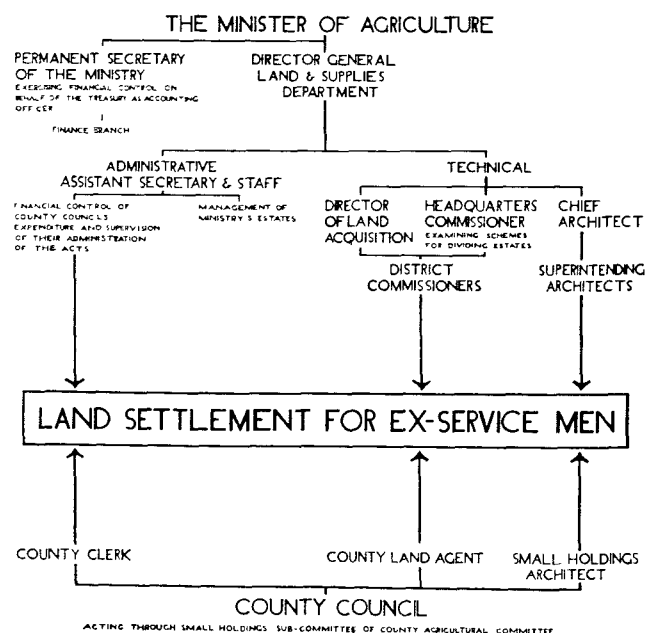
My mind goes back to the beginning of 1919, when Lord Ernle asked me, after the completion of

my task as Controller of Supplies in the Food Production Department, to take in hand the supervision of the building programme of Land Settlement (my promotion to the charge of the whole of the Land Department did not come until towards the end of the year). I then found the Ministry without a single architect to supervise the spending on building by County Councils of about eight millions of money.

Fortunately, the world of architecture was not strange to me. As my old friends walked out of the War Office with their demobilisation papers, I fell upon them. My first list of Superintending Architects included the names of Maxwell Ayrton, Oswald Milne, Clough Williams-Ellis, John Lee, and, last but not least, H. P. G. Maule, so you will admit that, whatever else my failures, I began the architectural side of my task with a notable team. It is true, I never hoped, or indeed asked, that they should desert the fierce joys and genial rewards of private practice for more than a short time, but I wanted to start well, and I did. Happily, I have retained Major Maule as Chief Architect, and Captain John Lee as a Superintending Architect, and hope to keep them until the task is over, and with them are now a staff of about twenty of the keenest, ablest, most devoted and most enthusiastic fellows who ever laid pencil to paper, and, I may add, ever coaxed or convinced a local authority to do that which is right in the eyes of a righteous architect. Without them I am persuaded that the extreme difficulties and complexities of the task would have landed me and the Ministry in the sea of failure and derision which has been known to engulf civil servants far more able and experienced than I shall ever be. You will please allow me to acknowledge here and now my debt of affectionate gratitude and admiration. I cannot break the Official Secrets Act and so risk probably five years in the Tower of London by revealing the words of a report of a Cabinet Committee which lately examined most closely into the administration and finance of Land Settlement. But I am allowed to be so far indiscreet as to reveal their opinion that if the Ministry's Superintending Architects had not shown great zeal and efficiency in effecting economies when supervising the building work of Land Settlement, the cost of fulfilling the Government's pledge to ex-Service men would be substantially greater than it is in fact. But that is what one expects of members of this Institute, and neither you nor I are astonished.

Let me now indicate by a diagram the functions of that division of my Department which deals with Land Settlement, and its relationship with the County Councils both on the administrative and technical sides. It is essential to successful working that the Ministry's District Commissioners and the Superintending Architects shall be in the closest touch with each other, because they are our ambassadors to the County Councils for land and building business respectively. This touch is maintained personally in the country and by monthly Conferences at the Ministry. It is also of fundamental importance that the administrative staff at Headquarters and the architect staff shall perfectly understand each other, and accordingly every week there meets a joint Equipment Committee at which difficulties and, I think I may also say, successes are discussed and the weekly reports of the architects are examined.

We have also two similar weekly Committees dealing with Land Settlement generally and with the Ministry's own settlements at which the Building Branch is represented. You may say that my De-



partment is Committee-mad, and it is fair for me to disclose that a journalist has referred to these meetings as "Weaver's Soviets," but I am wholly impenitent. I see no prospect of success in any enterprise which is nourished on minute-writing, and the holding of meetings at which every one, even very junior members of the staff, is encouraged to speak their minds freely, saves a vast amount of time and paper and ink. But, what is far more important, it establishes a spirit of comradeship, and makes it possible for a lot of able men to pull together as a team. Incidentally, it enables the head of a Department to weigh the value of his staff in a way that no other method provides. I am at least convinced that it is the way to get on with the job. It is the way I learned to work at the Food Production Department when Lord Lee was my chief. If my colleagues and I have put through the first stage of our task with any sort of success under Lord Lee as Minister of Agriculture, it will be by virtue of his skilled leadership and unvarying encouragement. And as, by a piece of luck which falls to few Ministries, our Parliamentary Secretary, Sir Arthur Griffith-Boscawen, who in that capacity was a stout and sympathetic supporter of the Ministry's staff, has succeeded Lord Lee as Minister, it will be our fault if we do not finish the task in an acceptable fashion.

As the accompanying diagram indicates, the Ministry's architects form mainly a superintending staff, and the duty of designing and building falls upon the County Councils. In order to administer the Small Holdings Act of 1908 the Councils appointed Land Agents, whose main business was to seek out suitable land, divide it into small holdings, administer it, see to repairs, collect rents, and generally do land agency work. In many counties the building work was confined to dividing and adapting existing farmhouses and adding simple farm buildings. This was usually done by the County Land Agent, who was perhaps a Fellow of the Surveyors' Institution, or had otherwise acquired some architectural experience. Sometimes the County Architect, who did the schools, police stations, etc., undertook the small-holdings work; occasionally, an architect in private practice was commissioned. It is certain that some of the work was ill done, but the bulk of the building work in most counties was confined to adaptations, and the number of new cottages built between 1908 and the war was only about 770 in the whole of England and Wales.

Amongst the many virtues of County Councils is a strong sense of economy, more marked perhaps when they are considering their salary list than when they are spending capital moneys provided by the Treasury, but always marked. When the task of settling ex-Service men had to be confronted there was some difficulty in establishing the fact that the most economical way of carrying out a big building scheme is to employ thoroughly competent architects to design and supervise. The Ministry took the line that in such years as 1919 and 1920, when shortage of materials and of skilled labour called for a peculiar flexibility of mind, a readiness to scrap old ways of writing specifications and a capacity to accept new methods and employ them intelligently were essential qualities in an architect, that such qualities command good salaries, and that cheap architects made dear buildings. My main task in respect to the employment of Architects by Councils therefore, has been to urge the engagement of men with proper qualifications at proper salaries; this has meant in some cases awkward controversies, and even the Ministry's insistence on the removal here and there of an architect who has proved lacking in skill and, therefore, wasteful of public money.

Full opportunity was given to the Councils for the employment of architects in private practice, but I am free to confess that small-holdings architects appointed *ad hoc* or the existing county architects when they had experience of farm buildings, have provided the best solution. Small-holdings work is a special branch of architecture with very different problems from ordinary housing. First, the farm buildings are an exceedingly important part of the task, and each agricultural district has its own traditions and practices in the housing of stock and of crops, so that intensive local knowledge is of great value; secondly, the proportion of alterations to new work is abnormally high, and demands, therefore, an abnormal amount of supervision on the spot; thirdly, the work is so extraordinarily scattered over the county that in the present difficulties the actual organisation of building represents a far larger proportion of the whole task than in any other sort of work.

We have found the best results from the intimate and continuous association of County Land Agent and architect, both whole-time servants of the Council, working in the same building, and visiting the works together. It is rare, though not unknown, to find a man with the required knowledge of both sides of the small-holdings problem, who can tackle both land and buildings.

I have been very disappointed at the lack of success, speaking generally, in counties where architects in private practice have been employed for small holdings. It leads to delays in carrying out the work, lengthy correspondence about trifles which two colleagues would settle in three minutes, and it is more costly. I have come to the conclusion most reluctantly, but I am quite clear I am right. The fact that in a few, a very few, cases the employment of private practitioners has worked well does not affect my view at all. But let me say that I limit my opinion to the case of this highly specialised sort of work in the conditions in which it now has to be done. My personal view, for what it may be worth, is that it does not apply, and ought not to apply, to important public buildings in which architectural abilities of a very different order are required. The architect in charge of cottage and farm building schemes needs to be equipped with artistic talent, but must be even more an organiser and economist, whereas the architect of a public building must first and foremost be an artist, a qualification which the methods of recruiting for Government offices, and the terms and conditions of service therein, can hardly be held to ensure. In short, the qualifications desirable in the architect of public buildings are seldom found in a man fitted to be a good Government servant.

I come now to the building methods which the Ministry has encouraged Councils to employ. Until lately, the difficulty which every one has experienced since 1919 of getting a firm tender was peculiarly intense in the case of small-holding work, on account of the inaccessibility of the sites and the smallness of each contract. Builders were naturally unwilling to scatter their organisations to meet our needs when so many jobs were to be had in or near towns, and, even if they would consider it, their difficulty in getting skilled tradesmen to rough it in lonely districts accentuated their unwillingness. In many cases the only chance of getting anything started was for the Council to set up a small Works Department, another practice of which I disapprove highly in principle, and should not sanction in normal times.

But I want you to realise the special urgency of our task. The men are waiting to get on to the land. As soon as a property is acquired, with possession in, say, 6 or 12 months, it is necessary to secure access to the building sites and to get on with the equipment so that, when possession is secured, there may be roofs over the heads of the small holders and, equally important, of their stock. You may have read distressing accounts of small holders camping out for months in tents and shacks of all sorts, because the wicked Ministry of Agriculture, or the still wicked County Councils, callously disregarded their needs. In such circumstances we had to get the work done somehow, and if there were no builders ready to tackle it, direct methods were inevitable. Moreover, in the large amount of adaptation work no sort of estimate has been obtainable, and real economies have been effected by employing labour direct. Even when working on the basis of time and material plus profit, the difficulty of checking accounts without a staff of accountants has made the work very expensive. I doubt if the provision of a large band of such people would have recouped their cost. I do know what would have been said about hordes of officials.

Throughout the task we have kept steadily in view the need of employing local materials, and we have built in timber wherever local timber was available. In many cases there is a lot of standing timber on the estates, and this is cut and converted and used in farm buildings, fencing, &c., and even for rough house-carpentry, the men employed being in some cases the waiting small-holders.

You will ask now what is our actual building achievement after all this effort. It is small enough when compared with the vast scheme of urban housing consisting of hundreds or even thousands of houses on a single site.

We have sanctioned the expenditure of £366,500 on the adaptation of existing buildings, and

£1,636,000 on new work, a total of £2,002,500. This work is going forward—it is not merely on paper. I exclude the value of all plans provisionally approved which have not reached the stage of actual building, but this category represents a large bulk of serious work done during the last two years, and about to come to fruition.

Our total task will probably be only 3,000 new cottages and 1,900 sets of new farm buildings (in addition to the adaptation of hundreds of both), but they are spread over 62 administrative counties in remote Yorkshire valleys, on the slopes of Welsh mountains, and in the folds of inaccessible downs. I submit that our time has not been easily spent, and of the total personnel of my Department, numbering 450 people, the building branch, from chief architect down to junior clerk, numbers only 46, scarcely "a horde of officials."

Nor is the supervision of the Councils' work the only duty of the branch.

When we got to grips with our problem early in 1919, two things at least were clear: our old ideas not only as to actual cost, but as to relative cost, had to be scrapped, and we had to make the best use we could of a limited range of available materials. I have consistently distrusted the policy, much boomed in 1919, of taking a short cut by turning Army huts into houses, the most unsatisfactory and, in the long run, the most costly expedient that could be devised. In some cases, the imperative need of getting some sort of house built in two or three months, with the alternative not only of homeless settlers, but also of land going derelict for lack of cultivation, compelled us then, and still compels us, occasionally, to sanction hut cottages. But we have always pressed for the permanent house, not only for the sake of seemliness and comfort, but because the hut cottage, with its short-loan period, is financially unsound, and merely postpones the problem of providing a proper permanent house for 10, 15 or 20 years, when a fresh capital expenditure will have to be faced.

Which, then, of the permanent materials were we to advise—brick, timber, or ordinary concrete blocks? Stone was obviously impossible, save in rare cases. Was salvation to be sought in cob or pisé, or in metal-framed cottages, or in new sorts of fancy concrete, whether blocks or monolithic, reinforced or not?

You are aware that it is a principle of our Government that the building work required by all Government offices shall be undertaken by one technical Department, H.M. Office of Works, and that rule was applied to the Ministry's own farm settlement estates, extending to about 25,000 acres. Sanction was obtained, however, for the Ministry's Building Branch to undertake the equipment of the farm settlement at Amesbury, Wiltshire. We there built 32 cottages to every sort of plan and in every sort of material, five of them to the specifications of the building experts of the Department of Industrial and Scientific Research. I will not burden you with details of the results, some of which have been published, but, broadly, these are our conclusions. Traditional cob is hopelessly expensive unless you happen to have a group of men who are familiar with it, but it gives an admirable house. Pisé with the chalk soil of Amesbury is about the same price as brick, given always efficient shuttering, which I think we can claim to have perfected in a very simple form. Pisé gives a very sound wall, but the plan must suit the material, and experience is needed to achieve this. Concrete blocks of chalk, 12 to 1, made with any ordinary good machine, are thoroughly sound.

Timber houses well built we found no cheaper than brick. Various proprietary methods of concrete block building wrought no deliverance. The greatest novelty, devised by the Research Department, was a concrete of chalk and cement, 20 to 1, mixed quite dry, and rammed between shuttering, which proved very satisfactory but no cheaper than brick. Brick indeed held its own perfectly.

At a later date it was arranged that the Ministry should also equip its three Lincolnshire Farm Settlements—Holbeach, Sutton Bridge, and Wainfleet, and there we have garnered the fruits of our Amesbury experience in really inexpensive sound building, either in timber, brick, or in continuous cavity monolithic concrete walls erected with simple shuttering. Our policy now is dictated solely by the varying types of building labour we have available, and we keep all three materials going at once,

changing our minds rapidly as the circumstances of available labour and materials change. This is possible at Sutton Bridge, because we have an estate of 6,000 acres coming into possession block by block over a longish period, and each block needs a very large proportion of new cottages and farm buildings. In Captain Ellison, an architect of a highly practical turn of mind, the Ministry has a Chief Building Manager to whose skill and enthusiasm I owe a considerable debt.

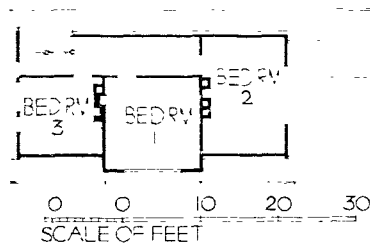
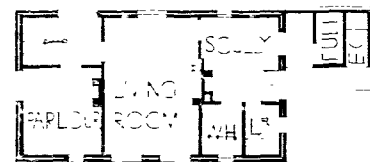
The value of having some estates of our own to equip has been incalculable, and the incident that we could get no contractor to build for us in Lincolnshire on reasonable terms has given the architect-



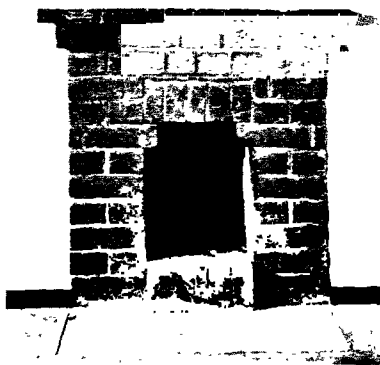
FRONT VIEW



INTERIOR OF LIVING ROOM



SINGLE CONCRETE COTTAGE



BRICK FIREPLACE

CARRIED OUT BY DIRECT LABOUR

SUTTON BRIDGE FARM SETTLEMENT (Ministry of Agriculture and Fisheries).

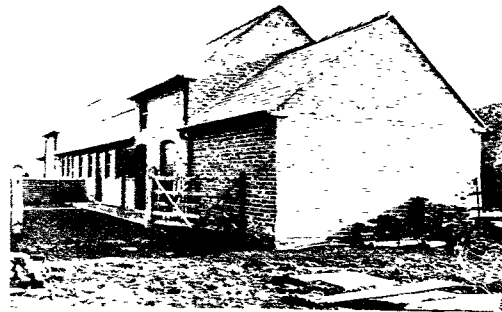
tural staff a close contact with problems of labour and supply which has been of infinite use to them in their task of advising County Councils and superintending their work. A staff whose sole duty is to stop in an office and pore over plans and specifications prepared by other people is bound to get out of touch with actualities, especially at a time like this when the situation changes from month to month. For all that, I look forward to the time when a return to something approximating normal conditions will enable the Ministry to cease the direct control of building operations. My main objection to such control is a financial one. Building is a commercial business, with its risks and speculative aspects. No one can foresee with certainty whether he will complete cottages at, say, £800 or £1,000 apiece; he may be £200 a cottage out. If I were to apply to the Treasury for sanction to a scheme of Land Settle-

ment in the County of X I should say, for example, that the estate would cost £90,000 and the equipment another £90,000. I know the fee simple value of the land to a penny, and have a provisional contract to purchase at that price. If I have a contractor's tender for the necessary building work at £90,000 I can put to the Treasury a plain proposition: "Here is an expenditure of £180,000. The outgoings on the property are so much, the rentals I can get will make so much. The cost to the Exchequer will, therefore, be so much."

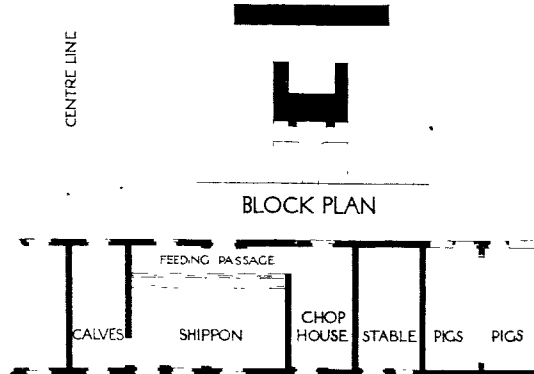
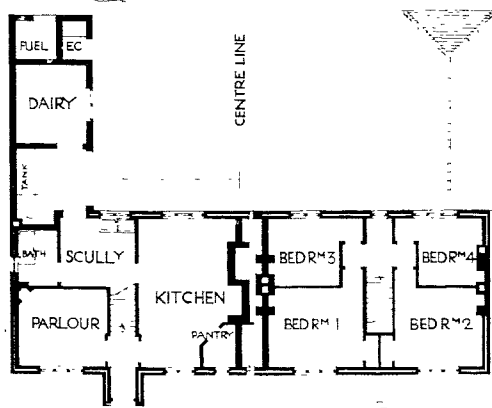
If the contractor has made a mistake, that is his risk. If, however, the Ministry does the work it is the Ministry that takes the risk, and if my estimates are £10,000 too low the financial basis of the Treasury's sanction is destroyed. The work is in mid-career and has to be finished, so the money must



FRONT VIEW OF COTTAGES



PAIR OF FARM BUILDINGS



10 5 0 10 20 30 40 50 60 70 FEET

BRILLON ESTATE (Hunt County Council) Pair of Cottages and Farm Buildings for Dairy Holdings

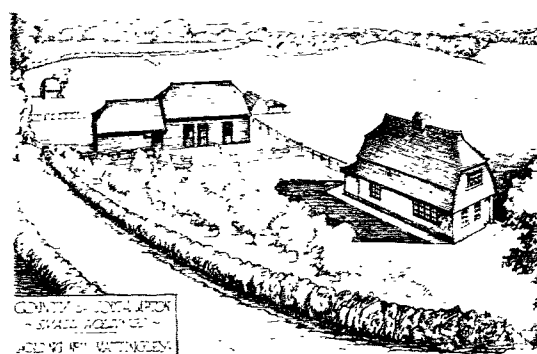
be found. That might even mean a Supplementary Estimate, a vile thing, justly condemned by the Treasury.

If my estimate is £10,000 too high the Treasury has to budget for more than is needed. National finance would be impossible if in all Departments there were floating uncertainties like this, and, speaking as an administrator, I dislike being responsible for any commercial undertaking. In the abnormal circumstances of the times it is demonstrable that our Works Department in Lincolnshire is saving money for the Treasury, but I shall be glad when we can go out of business, and employ a contractor and let him carry any risk there is.

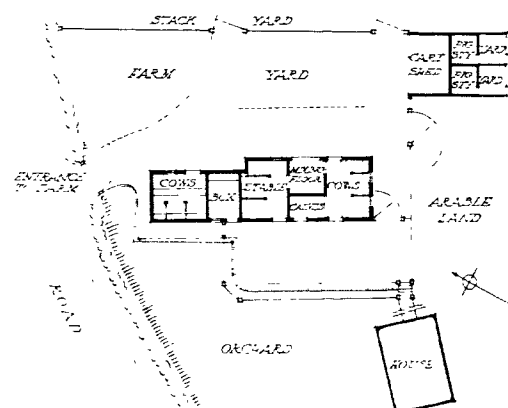
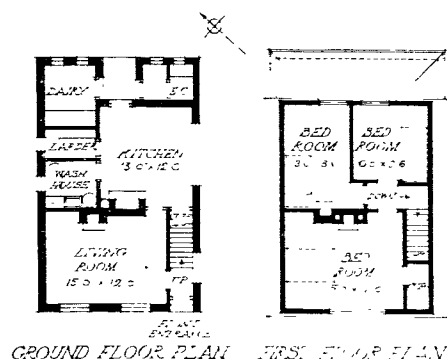
I would add that the existence of a temporary skilled staff makes many things possible that will be

impossible when Government Departments are able to settle down to their true task, which is administering the law and not running a business, and are equipped mainly with a permanent administrative staff and with only so many technical officers as are needed to superintend the work of the technical officers of Local Authorities in the interest of efficiency and sound finance.

There are other objections. Building, like any other business, needs capital before a brick is laid. Money is no longer borrowed by the State at a low rate of interest, and in any case contractors' plant is a poor investment for borrowed money. It is also at least doubtful whether any commercial undertaking can work smoothly and well under the system of checks and sanctions which must necessarily and properly be applied by the Treasury in respect of expenditure of all kinds, and especially on salaries.



DERIVED FROM BUILDINGS TAKEN FROM ADJOINING FARM
RE-ERECTED AND ADAPTED FOR FARM BUILDINGS
APPROXIMATE COST £ 25



HECKFIELD PLACE, ESTATE, MATTINGLEY (Hants County Council) Cottages and Farm Buildings for Dairy Holding No. 11

In the Government service there must necessarily be grades with certain salaries attached to them. In a commercial undertaking, each specific job justifies the employment of a specific man at the salary which his market value commands. The two systems do not mix. There were bold spirits during the war who said that all would be well if Government Departments were allowed to have business men to run them and if those men were given so much money by the Treasury and allowed to spend it as their discretion dictated. In so far as that had to be done under the stress of war, it succeeded sometimes and failed often. Anyhow, no one seriously proposes to establish it as a system. I speak with some detachment, as I was a business man and have been manager to one of the biggest contracting firms in the country, and am now a civil servant. I know both sides of the picture, and am satisfied that rigid Treasury control is absolutely essential, and that rigid Treasury control makes commercial enterprise impossible.



ORIGINAL CONDITION OF HOUSE



SHOWING BIRDS MOUTH JOINTS &
SPREAD OF ROOF



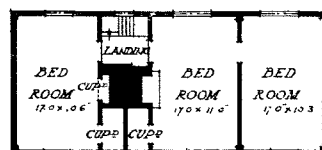
ONE END OF HOUSE STRIPPED FOR RECONSTRUCTION



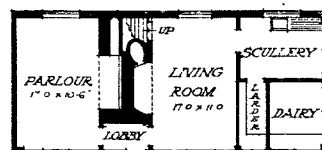
NEARING COMPLETION



AS COMPLETED



FIRST FLOOR PLAN



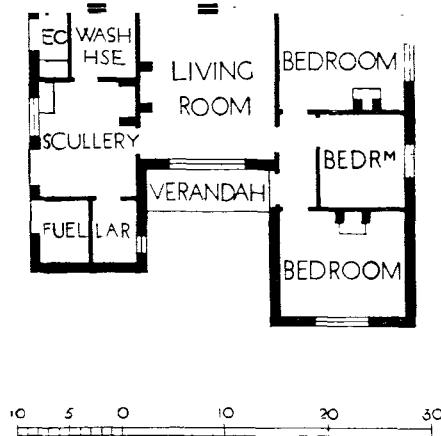
GROUND FLOOR PLAN



I think the solution is for Departments to keep out of business. It is often said that it is immoral for the Government to compete in business. I see nothing either moral or immoral in it, but I think it highly inexpedient, unless it is unavoidable, because it is financially speculative.



BUNGALOW IN BRICK ROUGH-CAST



BUNGALOW IN BRICK

STAFFORDSHIRE COUNTY COUNCIL. LOCKNAGE ESTATE.
TWO POULTRY HOLDINGS FOR DISABLED MEN

Before the task of Land Settlement for ex-Service men is completed, the Ministry will need to approve the expenditure on equipment of between seven and eight millions as compared with £2,187,000 on schemes already sanctioned.

I come now to the sort of cottage designs we commend to County Councils and employ ourselves. We began with high hopes of maintaining a standard of dwellings for small holders which would justify our desires for a new world, and the Ministry's first *Manual of Equipment of Small Holdings*, issued in May, 1919, prepared by its Architectural Staff, was justly praised. Towards the end of 1919 rising costs had somewhat chilled us, and we issued a second edition with the more spacious types omitted and inserted some new ones on a markedly modest scale. In September 1920 a third edition followed in which we cut down the accommodation to a minimum, and exhorted the counties to adopt many economical devices which were the result of our own experience.

The responsibility lies upon the Ministry's architects, not only of checking the Councils' expenditure on building, so that on no estate shall the loss be greater than is allowed by the Ministry's maximum scale, but also of seeing to it that the cottages and buildings designed by the Councils' architects are well planned and seemly, and that old buildings adapted are treated with the reverence due to traditional work, however humble. I do not pretend that we have always succeeded or that the Ministry can be proud of everything done in the name of Land Settlement, but I do claim that the level is reasonably high, and that a good proportion of the work is conspicuously successful, having regard to economic limitations.

As examples of the work done by the Councils and by the Ministry, I shall now show on the screen photographs and plans of cottages and farm buildings on small holdings. [See list of Illustrations on p. 321.]

Let me, in conclusion, say that at the beginning of the Ministry's building work in 1919 I sought the advice of the President of the Institute on many points with regard to the remuneration of architects for small holdings work, and other professional matters, and as you will assume without my labouring the point, received much wise and valuable advice.

What I have done this evening, therefore, is to describe to you the task laid upon the Ministry of Agriculture in fulfilling a great national pledge, and to report progress. The major part of the work has yet to be done, but I am persuaded that, with the skilled help which is given so enthusiastically by a devoted staff, amongst whom the Superintending and District Architects of the Ministry are a phalanx of common sense and professional skill, it will be completed in a way that will do them and the Ministry lasting credit.

LIST OF ILLUSTRATIONS (PHOTOGRAPHS AND PLANS) SHOWN AT THE MEETING.

MINISTRY'S SETTLEMENTS.

AMESBURY.—Cob cottage.

Pisé cottages. Two-storey single.

Pisé cottages. Two-storey pair.

Pisé cottages. Two-storey single, with weather-boarded gables and bedrooms in roof.

Cottage in chalk concrete blocks, 12 to 1, made in block machine.

Cottage in chalk and cement semi-rammed between shuttering (Department of Scientific and Industrial Research).

Cottage in reinforced monolithic concrete (Department of Scientific and Industrial Research).

Cottages in brick, pair, the most economical type at Amesbury. Type D.13 in Ministry's Manual.

BOSBURY.—Pair brick cottages and concrete farm buildings. Designed and built by H.M. Office of Works.

ROLLESTON.—Pair of cottages, one with shop. (H.M.O.W.)

HOLBEACH.—Pair brick cottages, an improved version of those first built by the Ministry at this Settlement

Farm buildings, in different materials, but to same plan.

SUTTON BRIDGE.—Single cottage and farm buildings in brick.

Single cottage in continuous cavity monolithic concrete. (Ministry's new system.)

Pair of cottages in brick and thatch, farm buildings in concrete.

Pair of cottages in brick: farm building in concrete.

Brick farm building: weather-boarded and timber-frame farm building.

COUNTY COUNCIL SMALL HOLDINGS.

ESSEX.—Beaumont Estate: Single cottage, timber frame, weather-boarded and thatch.

Beaumont Estate: The same in pairs, tiled. County Architect, John Stuart, F.R.I.B.A.

HAMPSHIRE.—Throop Farm: Pair of cottages in brick.

Heckfield Place Estate: Single cottage and re-erection and adaptation of derelict farm buildings.

Wangfield Farm, Botley: Reconstruction of derelict sixteenth-century cottage. Major Roberts, County Education Architect.

CORNWALL.—Bodilly Wendron: Single cottage in local stone. The late Alan Potter, A.R.I.B.A., Architect.

SOMERSET.—Thorn Farm, Castle Cary: Single cottage and farm buildings in local stone.

Thorn Faleon: Single cottage and farm buildings in local stone.

Donyatt Estate: Single cottage and farm buildings in local stone.

Major A. J. Toomer, Small Holdings Architect.

GLOUCESTERSHIRE.—Alderton: Pair of cottages in brick, limewashed. H. H. Scott-Willey, A.P.I.B.A., Architect.

STAFFORDSHIRE.—Cocknag: Bungalow for disabled men.

Cocknag: Two-storey cottages (pairs), poultry holdings for disabled men.

Rodbaston: Pair of cottages for disabled men, cowkeeping.

Rodbaston: Pair of cottages for disabled men, cowkeeping.

Rodbaston: Single cottage and farm buildings, dairy holding.

Rodbaston: Single cottage and farm buildings, market garden holding.

Rodbaston: Single cottage and farm buildings, mixed holding.

J. M. Hotchkiss, County Land Agent.

CHESHIRE.—Huntingdon Estate: Pair of cottages and farm buildings. Market garden holdings.

Buerton Estate: Pair of cottages and farm buildings. Dairy holdings.

R. Douglas Wright, County Land Agent.

ANGLESEY.—Clwch Dyrnog: Single cottage and farm buildings. Dairy holding.

(Anglesey was the first county to submit plans to the Ministry and to begin building.)

Garneidd Fawr: Pairs of cottages.

Garneidd Fawr: Single cottage and farm buildings for dairy holding, 39 acres.

Llwyn-yr-arth: Conversion of old barn into cottage.

J. T. Mather, Small Holdings Architect.

Flint.—Bretton Estate: Pair of cottages and farm buildings for dairy holdings.

Hope Hall Estate: Single cottage for dairy holdings.

Rhuddlan Estate: Single cottage and farm buildings for dairy holding.

Samuel Evans, Lic.R.I.B.A., County Surveyor.

MONTGOMERY.—Rhandregynwen Estate: Pair of cottages and farm buildings.

Cefnbryntalech, Newtown: Single cottage and farm buildings.

R. W. Davies, Small Holdings Architect.

DISCUSSION ON SIR LAWRENCE WEAVER'S PAPER.

The President, Mr. JOHN W. SIMPSON, in the Chair.

The Right Hon. LORD RIDDELL, rising at the instance of the President, said: "I am sure we are very much indebted to Sir Lawrence Weaver for his lucid Paper and for the admirable pictures illustrating the work of his Department. I desire this opportunity of congratulating Lord Lee, Sir Lawrence Weaver, Sir Arthur Griffith-Boscawen and their colleagues upon the admirable work they have done at the Ministry of Agriculture, and upon what was done by Lord Lee and Sir Lawrence Weaver during the war in the Food Production Department. I have a personal interest in Sir Lawrence. He entered the Food Production Department in quite a lowly capacity. I remember Lord Lee telling me one day that he found great difficulty in carrying on his work for want of efficient persons to assist him. I said, 'I believe you have a most efficient person working in one of your cellars. I suggest you should go back to the Ministry and dig him out. His name is Weaver.' Lord Lee thanked me, went back and dug him out, and in due course Sir Lawrence Weaver moved to the highest position in the Food Production Department and performed great service for which, perhaps, he has not had sufficient credit. I was very much interested in what Sir Lawrence said about economy. We are all for economy. But I am glad to think that architects are not usually so much for economy as most other people, for they recognise, perhaps more than anybody else, that buildings when erected are more or less permanent things, and that they have a duty not only to their client, but to their country. It is a horrible thought that for the sake of a few million pounds even our dear England should be rendered less beautiful than it is by the construction of a number of wretched little cottages. I am glad that Sir Lawrence Weaver and those acting with him have done their best, within due limits, to avoid that. Sir Lawrence said that the Ministry of Agriculture and the Government were under an obligation to perform this work because a pledge had been given. As far as I am concerned I pay no regard to the pledge at all. It is a splendid investment to erect these cottages, and a splendid investment to put these people on the land. When the Germans were battering away at Amiens in March, 1918, we all said, 'What does it matter what it cost if we only win the war?' It cost a good deal to win the war, but we won it. Our main purpose ought to be to have a happy and contented people in this country, and, in particular, a happy and contented agricultural population, and, speaking for myself, I will gladly pay taxes for the purpose of securing that end. Sir Lawrence told you that these transactions cannot be carried out on economical lines at the present time. That may be quite true, but in the long run they will be economical, because you can have

no better investment than sound cottages and sound agricultural properties in a country like Great Britain. Sir Lawrence Weaver was good enough to borrow a simile of mine—I think I mentioned it some time ago. I said to him that most professional men have a way of burying their failures. Lawyers bury theirs in the Bankruptcy Court, and doctors bury theirs in the cemetery. The misfortune, however, is that architects do not bury their failures. They stand as a permanent menace. Therefore it is most essential that you should have well-designed houses. Sir Lawrence referred to that burning question, the incursion of Government Departments into the realms of architecture. With reference to that, I am a professional man myself, and fully realise the feelings of professional men and professional societies. At the same time, the main purpose is the public good. As a general rule professional men are prepared to subordinate their own feelings when they are satisfied that it is essential for the public welfare that a certain course should be taken. It is obvious that if a public department is building thousands of cottages and hundreds of farm buildings, the construction of which requires great technical knowledge and many experiments, it is essential that the department should engage its own architects. I agree with Sir Lawrence Weaver that in the case of large Government buildings it is better that there should be an open competition, that you should have an opportunity of finding what fresh gemuses there are in the architectural world, and that the plans should be prepared on the most modern and advanced lines. On your behalf I thank Sir Lawrence very much for his admirable Paper, and sincerely hope that wide publicity will be given to what he has been doing. I have spent a good deal of the last two years at Peace Conferences. I see that the Secretary of the Cabinet has just written a Paper on "Diplomacy by Conferences." I would say that in all public affairs what we want is open diplomacy: we want information as to what is being done, and if that information is supplied, that is the best method of avoiding criticism. That is another reason why I think we are indebted to Sir Lawrence for the admirable disquisition he has given us upon the work of his Department.

Sir DOUGLAS NEWTON, K.B.E. (Chairman of the Cambridgeshire County Council) It gives me very great pleasure to be allowed to second the Vote of Thanks which has been proposed by Lord Riddell. We are all greatly indebted to Sir Lawrence Weaver for the interesting and instructive Paper he has given us, and are grateful for the way in which he has dealt with what is, after all, a very complicated and difficult subject. Very few of us realise how large and how complex is the problem with which the Ministry of

Agriculture are faced. Few people realise the powers given under the Land Facilities Settlement Act. Under the terms of that Act—and it is brought particularly to my notice because I speak by virtue of being chairman of a county council, which is a body charged with the other side of the administration of the Act—under the provisions of that Act we can turn a man out of his home, or out of the farm which he has held all his life, and which his father held before him, every tree of which he has planted or tended personally; we can turn him out to seek for occupation, if he can find it, at fourteen days' notice. Those are the powers which we possess, and it only shows that with powers so great and so far-reaching how necessary it is to advance carefully and to administer the Act with tact and discretion. I think we are very fortunate in the way in which Sir Lawrence and those associated with him have put into execution an Act having such enormous powers. Sir Lawrence referred to the question of the employment of architects by county councils and by the Ministry of Agriculture. This, so far as county councils are concerned, was at one time a hotly debated question, and I think now that we have all tumbled down on perhaps what you would consider the right side of the fence, it is generally admitted by county councils that expert advice of a qualified character is most essential, and most county councils now employ at least one architect, and many two—one for the educational side of their work, and the other for the land settlement side. At the same time I would like to urge the great advantage to be gained by close and whole-hearted co-operation between the professional architects and the land agents who are charged with the settlement of the men and with the provision of the most suitable buildings for the working of the land in question. Sir Lawrence referred to the advantage of men living in villages. Coming, as I do, from Cambridgeshire, we find that the great majority of our small holders prefer, and rightly so, to live in the villages; and I hope that as much advantage will be taken of that feeling as possible, as it is most desirable to encourage it. If you can settle men in the villages rather than dot them about in outlying places you can develop community life, and you cannot develop community life adequately and satisfactorily unless you do settle them fairly close to, or in, the villages. Conditions are now very different from what they were only a few years ago. The advent of the bicycle makes it much easier for a man to get to his work. Again, the question of fertilisers makes it possible to farm in a somewhat different way from that previously considered necessary. All these things have their effect on the building question and the place where the buildings can best be erected. There is also the further question that has arisen as a result of the limitation of hours and working conditions, namely, the Saturday half-holiday. That has come to stay, and it gives an opportunity for men to organise sports and games, which, again, is a strong reason for living in close community. There is, too, the question of co-operation. Co-opera-

tion is vital to the small man, because it puts him more in the position of the big man, and gives him a power of bargaining and getting commodities on reasonable terms and disposing of them on good terms. Unless small holders are brought together by living near friends and neighbours, you can never establish that confidence which it is so essential to establish in the rural mind and upon which the spirit of co-operation rests. I must say I have viewed with some alarm the development along uneconomic lines of very large numbers of holdings. So far as my county was concerned, we were self-supporting under the 1908 Act, and should have remained self-supporting under ordinary conditions. At the same time we were not typical of the whole. The money is now running out, and we shall be faced soon with a large unsatisfied demand which it will be very difficult to devise means of meeting. I hope that steps will be taken to encourage private land-owners to satisfy that demand as far as possible, and that the hiring of land will be one of the steps which will be taken to find land, because it is most important that those men should not be disappointed. As regards the employment of direct labour, in a general way we find in Cambridgeshire that the contractor is more economical, more astute and more efficient in the management of labour than we are able to be. He is better able to supervise and direct labour and to get the best out of it, not unfairly, but properly, than we are able to do, and it is not a good plan to set up large works departments of our own. Contractors, after all, have a very definite and direct incentive, namely, profit, which is still the moving impulse in regard to effort in this old country, and although abnormal times require abnormal methods, I do hope that Sir Lawrence Weaver and his Department will not encourage—I do not think they do—the setting up of large numbers of works departments throughout the large area which they control at the present time. We all tender to Sir Lawrence our best thanks for his most interesting Paper. He has shown us clearly the magnitude of the task he has had to face, and as a county councillor I am very grateful to him for the kindly reference which he has made to us, and the part which we have played in trying to assist him in tackling and dealing with this great problem. After all, we have a great population—more condensed, more congested, perhaps, than in almost any other country in the world—yet we find that we have had practically no serious agrarian troubles. Why is that? I think it is because it has been the aim of our legislators to do what they could to satisfy all legitimate demands, and they have passed legislation making land available on fair terms at short notice to those who are qualified to cultivate it. I hope that we may long continue to do all we can to meet the legitimate demands of those desiring access to the land; I hope that we may never change our policy in that respect, because I am convinced that out of that we get, and we shall continue to get, a strong and virile population, a population able to maintain the traditions of

the past, and to uphold that proud and wonderful position which we now have among the nations and the people of the world.

Sir SYDNEY OLIVIER, K.C.M.G.: May I, Mr. President, as having been Permanent Secretary to the Board of Agriculture, express my very great pleasure at the review which Sir Lawrence Weaver has given us of the work that Department has been able to do since the war. It has been a great relief to see the good and sound and really, in many cases, quite handsome work done by the counties and the Department. It has been a relief to me personally, because at one time I shared the apprehensions which your Institute had lest the country should be disfigured by a large amount of cheap and nasty building. I noticed that Sir Lawrence told us that, on the whole, the cheapest thing was the building in brick. We are not all enamoured of the plain brick cottage, and I was glad to see in the stone counties that they were still building in stone. I live in North Oxfordshire, and I should be very sorry to see the habitual stone building superseded by brick. We still find we can build most cheaply in the local stone which we dig from the ground, provided we do not spend too much time and labour in cutting quoins, but use brick facings for the openings in windows. That makes a very nice cottage, and I hope we shall continue as much as possible to build in stone. There is one point I would like Sir Lawrence Weaver's opinion on. The country I refer to is a country of small holders: it is the country of Fergus O'Connor's Land Settlement, but also round Ridgwood Forest there is a very wild part of the county where a great many wild men lived and squatted, and when the forest was afforested they received grants of land. We have ten or a dozen smaller holders in my own village, living on lonely farms, keeping a few cattle, and altogether living under conditions which the Board of Agriculture scientifically proves to be entirely uneconomical and impossible, but which from their point of view give them a very good living and one they prefer to any other kind. They have very nice old farm houses and farm buildings, but owing to the fact that they are roofed with stone slates and were originally built with timber rafters and oak laths, they are falling down, and unfortunately the Stonesfield quarries have been closed so that there are very few slates obtainable. I should very much like to see county councils extending their assistance to those holders in order that they and their beasts may not be without shelter: perhaps the county councils could extend their architectural help towards some means of meeting the great difficulty they are in now of maintaining their buildings. Of course, to a certain extent we are not rebuilding any stone walls, and where an old slate roof gets bad the local builder buys the slates and thatch is now put on. Before the war it was not thatch but corrugated iron, or perhaps blue Welsh slates. But both are too expensive now, and I am happy to see there is to be a change. The county councils in such places as Oxford might do a good deal

to save those small holders, who live a very admirable and healthy kind of life, by giving a little architectural help in regard to maintaining those buildings and finding the materials.

Mr. W. P. BLACK [F] said he came from South Africa, this being the first time for seventeen years that he had visited London. He had had ample opportunity, both in South Africa and in the Colonies, of noting the different methods by which settlement had been made on the land, and Sir Lawrence Weaver's illustrations had afforded him great pleasure, because they showed a more substantial class of building than could ever be attempted in, for instance, Canada or Australia. In New Zealand the system of construction was such that a sawyer going into a district would cut down the timber on the farm, and after a very short time that timber was used for building. In South Africa the system of *pisé* was by no means new, for some of the buildings erected on that system had lasted considerably over a hundred years. The Dutch folk always took the precaution to whitewash their buildings about every second year, and it was surprising how long their buildings last. It was indeed refreshing to find that the people in the dear old homeland were now making an effort to settle their soldiers on the land. Settlements had been going on for the last fifty years in the Colonies, and he was only sorry that the surplus men here were not sent out to South Africa in particular, where they would be very welcome and where an expenditure of £2,500 on a holding would mean almost a new life for them: they would find the conditions there very congenial, and he was sure the British Empire would be benefited by having those men out there, for, as every one knew, the lads from the Colony during the war all did what they could to keep the flag flying. (Applause)

The PRESIDENT: A week or two ago it was my pleasure and privilege to sit at a dinner next to the gentleman who is now the Minister of Agriculture, Sir Arthur Griffith-Boscawen. Upon him fell the duty of replying to the toast of the Government Departments. He prefaced his speech by saying that he was not sure that it was a very popular toast—a remark which was greeted with loud applause—and proceeded to skate dexterously over the merits or demerits of several of the Government Departments. He admitted quite candidly that he had heard some of them described as ‘extravagant’ and, turning to Sir Eric Goddes, who was sitting near, he said, ‘I have even heard them termed ‘grandiose.’’ Having said that, he proceeded with great enthusiasm to dilate on the merits of one Department, which he said he had always found universally popular and greatly beloved. That was the Ministry of Agriculture. He is now the Minister of Agriculture, and I was wondering, as I heard Sir Lawrence speak—we know that the chiefs are coached by their chiefs under them, their chieftains, as the Scotch call them—whether it was Sir Lawrence who had

coached Sir Arthur Griffith-Boscawen, or whether Sir Arthur had laid down lines that Sir Lawrence was to follow to-night. At any rate, we admit Sir Lawrence has made a very excellent case for his Department, and we acknowledge with gratitude his handsome admission of the help that he has had from members of the Institute. At this late hour I am not going through the Paper, which I have very heavily annotated. There is only one point on which I think you would like a word from me, and that is the question of the employment of Government Departments to carry out work which, I think justly, we consider might be very much better done by private enterprise. Sir Lawrence has said that he sees nothing moral or immoral in such a practice, but I think we may at least consider it a matter of very doubtful morality to tax His Majesty's subjects and keep up a Department which deprives them of their own livelihood. That the proceeds of taxation should be used to deprive private citizens of the means to meet taxation seems to me shockingly immoral. That, gentlemen—and I am addressing more particularly the members of the Institute here—applies to a question of policy and not to the official architects themselves. The official architects themselves are in many cases members of this Institute, and as such they have all the privileges, the protection and all the affectionate support which this Institute can give them, provided always that they themselves walk within the perfectly clearly laid down lines of professional morality. (Applause.)

Sir LAWRENCE WEAVER, in returning thanks, said: I need scarcely say I am very grateful for all the polite things said about me, some true and some not; but I am very grateful, whether true or not. I should like to say one word on the question of the grouping of holdings. I am rather proud to remember that in the forefront of our Manual on "The Equipment of Small Holdings" we drew attention to the importance of grouping cottages and holdings together and forming a new communal centre rather than scattering them all over the estate. I did not, of course, deal with the question of co-operation because it is a very large and difficult subject, but I need scarcely say that the Ministry is keenly alive to the necessity of promoting co-operation. It is true, as Sir Douglas Newton said, that we have gigantic powers, but being very patient and kind, we rarely use them, and then only with recalcitrant persons. There is a power even more drastic than the power of compulsory purchase, and that is the power of compulsory hiring. Sir Douglas spoke of the necessity of private land-owners hiring land to small

holders in order to provide those who cannot be supplied when the Government fund runs out. But I would remind him that county councils—they always hate to be reminded of this, and that is why I do it—have powers to put a compulsory hiring order on any man's land for thirty-five years, which is surely the most extraordinary power with which a local authority was ever invested. Chairmen of county councils are potentates. All that Sir Douglas has to do, as Chairman of the Cambridgeshire County Council, is to go back to Cambridge and write out compulsory hiring orders for all the land he wants, and then the owners have to give it up for thirty-five years. It is an extraordinary power, but exercised so gently that it is not noticed. With regard to Sir Sydney Olivier, it is very charming of him to be so kind to a young and ingenuous lad who follows in his mature footsteps, and I am glad to make the proper and official reply. I have to remind the honourable member that under the provisions of the Land Settlement Facilities Act, 1919, the funds provided by that Act are not to be used for helping civilians, but that preference has to be given to all ex-Service men. Therefore, those charming civilians who have stone tiles and small holdings in Oxford must wait until some other Parliament provides funds for the repair and improvement of their holdings. I have to see that nobody but ex-Service men gets the benefit of funds provided under the Act. The honourable member will very much regret my reply, but that is the statutory position. It is very pleasant to have a friend from the Dominions here, but I should like to correct one misapprehension. He must not think that we spend £2,500 on each small holding created in this country. I said that £2,500 was the maximum amount which was spent on any one holding. As a matter of fact, Sir Douglas Newton, who is one of the most economical chairmen of county councils in the world, and spends less money than any county council chairman there is, settles his men at a few hundreds apiece in Cambridgeshire. I may mention that the average for England and Wales is something between £750 and £900 per holding, and it would be much lower were it not that in Wales the expenditure per holding is high. Welsh small holders are exacting people: they want more acres and buildings than anybody else, and thus the average is increased for the whole country, but that is because the agricultural conditions of Wales are not favourable to the inexpensive and small English market garden holdings which bring down both the English and the general average. But £2,500 is now the absolute maximum even in Wales.

REVIEWS.

EIGHTEENTH CENTURY LONDON.

The Eighteenth Century in London. An Account of its Social Life and Arts. By E. Batsford Chancellor, M.A. F.R.Hist.Soc. 4s. Lond. 1920. 35s. net. [B. T. Batsford, Ltd., 91, High Holborn, W.C.]

There is no better antidote to the distressfulness of our own hustled history than a plunge into the placid waters of the eighteenth century. If middle-aged people may still occasionally be betrayed into speaking of it as the "last century," the expression appears almost comic as applied to a period so remote in every aspect from our own. Is not the age of Dickens now all but faded from the memory of the oldest among us? And the London of Pope and Johnson is as diverse from that of Dickens as it is from that of Shakespeare and Milton.

We of an age still tossing in the fever of world war, and supping full of horrors, with our nerves wracked by recurrent crises in politics, manners and art, turn with relief to the contemplation of one which, at any rate at this distance of time, appears to be swayed by a pervading harmony, an age where *tout se tient* affords at once a sedative and a steadying influence to one of harsh contrasts and discordant tendencies. Our great-grandfathers had their worries and alarms: but, real as they were to them, they can be observed with philosophic calm by descendants whose experiences are far more cataclysmal.

It may be said that the eighteenth century is not quite so much all of a piece as it may appear to a first glance: that there is almost as much difference between the ages of Anne and of George III. as between these and the ages of the Restoration and the Regency. Yet the eighteenth century—especially if it be antedated by a decade so as to coincide with the interval between our own "Glorious Revolution" of 1688 and the French Revolution of 1789—has a unity of its own which minor internal differences do but enhance, and from this unity there disengages itself a flavour of leisureliness in work as in play, a harmony all the more reposeful that it is not of the dazzling texture of the Middle Ages or the Renaissance with their intense ideals, but woven on a warp of moderation and common sense, of benevolence and good taste.

Urbanity is the dominant note of its civilization. It is therefore in "the Town" that we find its fullest savour, and we may look to Mr. Chancellor's pages, displaying as they do London in its manifold aspects, for the quintessence of English life of that age.

If Messrs. Batsford have a fault as publishers it is that they present their authors with the pint pot and request them to serve up the ocean in it. Works produced under these conditions suffer from an enforced compression which tends to crabbedness of style and difficulty of digestion; and a work such as Mr. Chancellor's is precluded from that virtue of "copiousness" so much prized by the literary critics of the age with which it deals, and so much demanded by a wealth

and variety of information diligently garnered from innumerable sources and not to be found elsewhere between two covers. It is no mean feat to unfold as he does within the compass of 260 pages a panorama of London and London life in their multiple aspects, the London of Harley, of Walpole and of Pitt, of Dryden and Addison, of Swift and Pope, and of Johnson and Goldsmith, of Thornhill, of Hogarth and of Reynolds, of Wren and Hawksmoor, Gibbs and Ware, Chambers and Adam, the London of the coffee houses and sedan chairs, flowing perukes and sacques, and the London of the clubs, hackney coaches powdered wigs and monstrous hoops.

Mr. Chancellor's chapters on the social life of London, its manners and humours, of London at work and at play, are excellently done and full of varied interest.

Under his guidance we can live among the "great" and the mob, the wits, the blue stockings and the denizens of Grub Street, the Mohocks and Macaronis, the merchants and the "beaux": take coach at the Four Swans in Bishopsgate, or a wherry at Whitehall stairs, lose or gain a fortune at White's and be relieved of it by gentlemen of the road before reaching Kensington: we may drink tea at Mrs. Cornelys' at Carlisle House, coffee at Button's in Covent Garden, or chocolate at the Cocoa Tree in St. James's: we may inspect Lunardi's balloon at the Pantheon in the Oxford Road, sup in the Spring Gardens at Vauxhall, attend a concert at Ranelagh or a rout at Chesterfield House; we may "cheepen" prints at Bowles' in St. Paul's Churchyard or old clothes in Rag Fair: we may be entertained by the fury of the birds in the Royal Cockpit or of lunatics in Bethlehem Hospital, and besides the everyday humours of the streets and spas, the turnpikes and the markets, we may witness the rarer delights of special occasions, fairs, water pageants, Lord Mayors' shows, elections and riots, pilloryings at Charing Cross or executions at Tyburn: we may worship decorously with Dr. Johnson at St. Clement Danes, or if we prefer "enthusiasm" we may be carried away like Lady Huntingdon by the eloquence of Whitefield in Moorfields.

Of the outward form and aspect of London Mr. Chancellor has much to teach us in his chapter on topography, the value of which is, however, somewhat diminished by the absence of plans, and in the admirable ones on the pleasure resorts, great houses, public buildings and churches.

In attempting to reconstruct mentally the London of the eighteenth century one is constantly struck with its smallness and its newness.

It was a small town when the open country began with Moorfields at the gates of the City: green fields stretched from the back of Bedford and Montague Houses in Bloomsbury to the slopes of Highgate and Hampstead, which, like Kensington and Chelsea, were isolated rural villages, when Dr. Johnson's friend, General Oglethorpe, could remember shooting snipe on the site of Regent Street, and, but for a few agglomerations of houses along the main roads and shipbuild-

ing centres like Rotherhithe, the Surrey side was an expanse of marshes and market gardens, dotted with isolated cottages and roadside inns like the Elephant and Castle and the Dog and Duck near the present Bedlam.

It was a new town, for the Great Fire had reduced all that lay between the Tower and the Temple, and from the river to Cripplegate, Aldersgate and Newgate, to the same condition as that in which the Germans left the towns of France and Poland, a wilderness of dust and smouldering embers: and in spite of the proud boasts of the inscription on the Monument, it was not till a generation had almost passed that the buildings, re-erected from time to time within the area of devastation, attained to anything approaching continuity, while fresh losses were caused by subsequent outbreaks in the Temple and Whitehall.

If the old tortuousness and narrowness of the thoroughfares were but in a very slight degree mitigated in the new city, in sanitation, in the paving and cleanliness of its streets, and in the substantial character of the general run of its buildings, it was far in advance of its predecessor. And if the picturesqueness of its timbered houses and many priceless examples of Gothic and Jacobean architecture were lost, the citizens of London might be proud with reason of the handsome edifices and monuments of brick and stone which lined their streets and squares and looked out over the river. If the dilapidation of certain buildings attacked but not destroyed by the fire was deemed to necessitate their rebuilding in the next generation, as in the case of St. Mary Woolnoth, and if causes such as the supposed exigencies of traffic led to the regrettable destruction of such relics of the Tudor age as Ludgate, Aldersgate and the Holbein Gateway in Whitehall, the eighteenth century did not fail to replace them, or to beautify London with buildings, public and private, worthy of a great capital.

How great but how sadly reduced a treasure we still possess in survivors of these we may judge from the chapter on Architectural Relics of the Period. We are, alas! like to see it further depleted by the demolition of Devonshire House and who knows how many City churches! We need not be far advanced in middle age to have known Dance's masterpiece at Newgate, or Webb's houses in Great Queen Street, the Bell in Holborn, and the Tabard in the Borough, and how many more are the monuments which could be admired in the eighteenth century but have been swept away without giving place to anything of equal artistic value! The Royal Exchange, Bethlehem Hospital, the Custom House, old Fishmongers' Hall, Temple Bar, Northumberland House at Charing Cross, Bedford House in Bloomsbury Square, Monmouth House in Soho, and Carlton House on the Mall are names taken almost at random from the casualty list, while others, such as Burlington House, Chesterfield House and Apsley House, have been transmogrified almost beyond recognition.

In matters architectural architects may not always

see eye to eye with Mr. Chancellor. He too modestly accepts traditional *clichés* of criticism such as those on St. John's, Westminster, St. Anne's, Limehouse, and Devonshire House; and one could wish that he would adopt more generally the independence of attitude of which he shows himself capable in his defence of the unjustly maligned steeple of St. George's, Bloomsbury, itself so independent of tradition. The towers of St. Mary Woolnoth cannot, as Mr. Chancellor states, have been adapted in little from those of St. Sulpice (p. 196), to which they bear little if any resemblance; for Hawksmoor's church was finished in 1719, when Servandoni was still a student in Italy, while his competition design for the new façade dates from 1733, and its execution—in a somewhat different form—from some years later. Nor is it a convincing suggestion that it was the Chiericati Palace (spelt Viericati, p. 150) which inspired Lord Burlington's remodelling of his town mansion. Other works of Palladio in Vicenza such as the Palazzo Porto would seem more probable models.

The chapter on the arts in the eighteenth century is a trifle disappointing in its meagreness, resolving itself into little more than a summary. While architecture and painting are adequately dealt with in other easily accessible sources, one would welcome a more ample treatment of the minor arts of the furniture maker, the goldsmith, the potter, the enameller and the weaver.

The liberal manner in which the eighteenth century drew upon the Continent for assistance in all the arts strikes one forcibly in the enumeration of artists. But sculpture and music are perhaps the only arts in which they were supreme and indispensable. The Frenchman Roubillac and the Fleming Scheemakers far outshone our native sculptors, hardly one of whom between Nicholas Stone and Flaxman is remembered to-day in spite of quite respectable achievements. The one great composer in England was the German Handel, though his talents met with scant recognition by the public at large. But if the opera depended on La Faustina and Cuzzoni, the theatre from Betterton to Garrick, and from Mrs. Bracegirdle to Mrs. Siddons, never lacked native exponents of first-rate quality.

For decorations we employed largely the talents of the Riccis and Saquerres, Ciprianis and Zucchis, and of innumerable carvers and *stuccatori*, and the artistic crafts were to a great extent in foreign hands: but in the mistress art, with the exception of Giacomo Leoni, the names are all native English, for Vanbrugh was English by birth if Flemish by descent. And in painting, the England which produced Hogarth, Reynolds, Gainsborough, Romney and Blake, and virtually invented the arts of water colour and mezzotint, had all the brilliance of a great school without the aid of such lustre as was added to it by a foreign colony comprising the names of Van Huysum, Canaletto, Fuseli, Zoffany, Louthenburg and Bartolozzi.

That the book is delightfully illustrated goes almost without saying. Excellent photographs of extant monuments and works of art supplement a generous series of equally excellent reproductions from the

works of contemporary artists in which the caricaturists, the genre and landscape painters and the architectural draughtsmen and etchers are drawn upon in turn. Hogarth and Rowlandson, Canaletto and Bartolozzi, Sandby, Scott and Malton, and many others contribute to place before our eyes the life of our forefathers in the setting in which they moved. It would be ungrateful among such a wealth of gifts to ask for more, but we cannot help expressing two wishes—first, that a view, if any such exists, of the famous Colonnade of Burlington could have accompanied that of the façade, and that Mr. Chancellor should have explained how it comes about that Canaletto's view up river to Westminster portrays a structure strangely foreshadowing Cleopatra's Needle.

It may be questioned whether Londoners of to-day love their London with the ardour she deserves, or which their forefathers devoted to her, but all lovers of London past or present will wish to possess Mr. Chancellor's delightful book. W. H. WARD [F.]

THE HOUSING PROBLEM.

How England is Meeting the Housing Shortage. By Laurence Veiller. [National Housing Assoc. at 50, 105, East Twenty-second Street, New York City.]

Mr. Veiller begins by saying that "The ensuing Report is an effort on the part of a disinterested observer, who has given the better part of his life to the study of the housing question, to set down as clearly as possible what England is doing in her effort to grapple with this problem, and to assess in an impartial and unprejudiced way the value of such effort." Mr. Veiller is an American, and the Secretary of the National Housing Association. His work had familiarized him with the situation of Housing in England, and he augmented this knowledge by a six-weeks trip here to further study the matter at first hand. For the information of American readers, Mr. Veiller has included a full recital of our endeavour; of the work of the Ministry of Reconstruction; the Tudor Walters Report, and that of Lady Emmott's Committee, with full details of the formation of the Ministry of Housing, and the legislation appertaining thereto. With all this part of Mr. Veiller's work the Englishman will not be very much interested, but when he seeks "to assess in an impartial and unprejudiced way the value of such effort," then an opportunity is offered to see ourselves as others see us.

Mr. Veiller suggests on p. 2 that it was a question of "Housing or Revolution": which is regrettable. It suits the policy of some of our legislators to regard the British working man as a hairy Bolshevik, and we are kept in chains because of this bogey. If Mr. Veiller had had any experience of trying to persuade the British working man to adopt any new methods of building, he would have found out what an inveterate conservative that individual is, and how adverse to any change. The working man is, after all, only Thomas Atkins in mufti, and if in uniform he could put up cheerfully with Flanders mud, why, when he is at home, should we

suspect him of revolutionary tendencies, always provided, of course, that he is given a square deal. Assuming, then, that the Government tackled Housing as a moral obligation, in what other way could they have proceeded. Mr. Veiller cannot help us very much; the problem was, and still is, an appalling one. In the boom times after the war, when the profiteer was throwing money about, and we had not discovered our poverty, it seemed reasonable to suppose that a day would come when an economic rent might be obtained. This is how Mr. Veiller sums up the situation: "Does it seem reasonable to imagine that a working man who has been living in a Government house for 7 years, and paying a weekly rent of 11s. for all that time, when he has been earning high wages, £4 to £5 a week, will be willing, when he is earning only £2 to £3 a week, to pay, let us say, treble the rent."

This is very sound criticism, and goes to the root of the matter. Will the Government of 1927 be able to put the Housing scheme on to an economic basis?

In America matters are not so difficult, because far more people own their houses, and consequently take more pride in them, and are prepared to make some sacrifice. Here, in England, since the culmination of land enclosure at the end of the eighteenth century, we have lost the small proprietors, and all they stood for.

The working man then got into the way of selling his labour, and his votes go now to the Party which promises most, and no party manager could be found who would countenance the delivery of the very sound sense on p. 15 of Mr. Veiller's booklet.

It is this political side that makes the problem so difficult. The working man is not really interested in his house: he does not settle down. He pays for his clothes, food, tobacco, and amusements, a fair price, but will not apply the same rule to his rent. The problem then is for how long can the other people provide houses, and let them at rents far below the real values. In the present impoverished state of the country, not for very long.

C. H. B. QUENNEL [F.].

AMERICAN HOUSING MATTERS.

The National Housing Association, New York, has sent us six more pamphlets dealing with various aspects of housing in the United States. The bundle is less than half an inch thick, yet there are more difficulties faced and solved than one finds even hunted at in many a bulky book. The need for homes is on a bigger scale than ours, for it is estimated that perhaps three million must be built to meet the demand. This is because very few small houses have been provided during the last ten years: the war has turned what was a pressing social concern into a national danger.

Industrial Housing covers a much bigger field than its name suggests. It gives the views and achievements of a highly gifted, trained and balanced mind, a man who realises "the importance of a thorough preliminary study of each problem before discussing house plans." So within a few pages are given

examples of town and site planning, and designs for churches, schools, hospitals, canteens, railway stations, hotels, stores and houses: honest, straightforward work.

Restful Rooms and *The Center of Your World* are brief catalogues of a commercial firm giving various outside and inside fittings, furniture, mouldings and many ingenious kitchen devices for which American homes are famous. All these articles have been specially designed by architects, and they must be of great service to people who need good things at a low price.

The Housing Problem in its Relation to the Contentment of Labor will convince the sceptical that good housing is one of the essentials of good industry and the general well-being of a nation.

The Housing Problem is a report by the official representative of the Associated General Contractors of the Eighth National Conference of the National Housing Association, held at Bridgeport last December. Through all the papers and discussions there is a strong current against the Government taking a share in the building and management of the new houses. Americans are not peculiar in having a dread of increasing Government Departments. Finance played a big part at most of the meetings. There are no subsidies in America, but although the cost of building has not gone up more than about 60 per cent. there are difficulties due mainly to the general "tightness" of money. Mr. Lawson Purdy suggested exemption from income tax for mortgages on small houses so as to make this form of investment more popular. Mr. E. A. MacDougall explained a successful co-operative apartment house scheme in New York, and urged the starting of more companies on similar lines. "The entire stock of this company is held by tenants in proportion to the area which they lease. This stock the tenant buys, and on it he receives a dividend. He then pays rent on his holding, and has a lease in perpetuity. As the tenants form the board of directors of the company, rents cannot be raised, except by majority vote. A tenant can at any time terminate his lease on due notice. If he should do so, he can retain his stock as an investment, or can sell it in the open market." The holding as an investment appears to be a danger. Dr. George Woodward gave an account of how he dealt successfully with his own property in Philadelphia. "The tenant pays a yearly rent of 6 per cent. on the original cost of house and land, and pays for all inside repairs, taxes, insurance and water rates. His rent can be increased only by an increase in taxes and water rates, and as a voter he is responsible for such increase. When the tenant takes possession he pays to the owner one extra month's rent which is held by the owner and from which, at the end of the year, the tenant is reimbursed for such repairs as he may make. At the beginning of each succeeding year this sum is renewed as an earnest that the tenant will keep up the property." This looks like a very sound scheme, but surely 6 per cent. is too low, the

landlord having to do outside repairs, provide a sinking fund, and probably a small amount for management charges. The Conference visited the new Bridgeport scheme. "Three things struck one forcibly: the permanent character of the houses, all being built of brick with slate roofs, the neatness inside and out, and the sturdy, happy-looking children. In the houses that we inspected, at least, we saw no coal in the bathtubs. In fact, the bathrooms were spotless." Here and elsewhere in these pamphlets there is conviction that solidity and economy are inseparable. One evening was taken up with the English garden city. The work of Mr. Ebenezer Howard was greatly admired, but there was "a doubt as to the ability of Americans to co-operate to that extent." In the discussion on materials and methods of reducing costs "the general opinion was that the best way to reduce costs was to standardize the units of construction rather than types of buildings." At the last meeting statistics were given showing the improvement to health and morals through proper housing.

The Housing Situation and the Way Out, by Mr. Lawrence Veiller, the Secretary and Director of the National Housing Association, starts with an account of the dangerous over-crowding that exists all over the country. In addition to the well-known evils it is crippling present industries and preventing others from being started. All the writers and speakers already quoted lay stress on one aspect of dear houses—dear money. Mr. Veiller exposes the other sides of the vicious triangle, materials and labour. "I venture to say that were unlimited funds, even at comparatively low rates of interest, made immediately available for house construction, few houses would be built. For, not only is the cost of building materials prohibitive at the present time, and that in the face of a minimum demand for them, but all intelligent observers agree that with the increased demand for materials that will come when building operations start up again, building material prices will begin to skyrocket." Coal seems to be the chief cause of dear materials, and uncertain transport, making delays on the works, adds to the cost. As to the labour, there is no knowing how much it will be. But the American bricklayer is said to lay from 1,200 to 1,500 bricks a day. The conclusion of the whole matter is the Government *must* help. "Reluctantly I am forced to the conclusion that there is no help for it but to invoke the assistance of the Government. No other agency is powerful enough to grapple with the situation. For it means fixing and stabilising, for a given period at least, the prices of building materials and building labour, as well as coal: and the control and the direction of transportation. Not until this is done can we expect investment funds to return to dwelling construction. And when that is done, without probably the necessity of any special tax exemption, capital will once more seek these channels of investment. For the need of the country is great, and industry is vitally affected by the present situation. With the uncer-

tainty of cost of construction removed and prices stabilised, there is no reason why the country should not be restored to the pre-war basis, and the construction of dwellings be resumed once more by the initiative of private enterprise. I do not wish to be misunderstood. I am not advocating either government housing or government-aided housing. I believe both to be unwise and undesirable. What I am advocating is that the Federal Government should take hold of the housing situation: should realise that the country is in a quicksand as to housing, and that it must be helped out." Those of us who know anything of the American spirit will feel confident of a happy and speedy ending to these troubles. And the National Housing Association will have a big share in this result.

S. B. CAULFIELD [F.].

THE LIBRARY.

Notes by Members of the Literature Committee on Recent Acquisitions.

These notes are published without pretences to a further and more detailed criticism.

THE THINGS WHICH ARE SEEN: A Revaluation of the Visual Arts. By A. Trystan Edwards, M.A. Oxon, A.R.I.B.A. 80, Lond. 1921. 18s. net. [Philip Alan and Co., Quality Court, Chancery Lane, W.C.]

This book is provoking. And a book that provokes thought in so many different fields of vision must be always welcome. We may not agree with all its processes or conclusions. And few people are so disconcerting as the too readily agreeable, or agreeing, ones. But it is one thing to stimulate ideas. It is quite another merely to state them in a form which communicates no vitality. In this volume there is something to wake an interest in architecture and the arts generally. And it shows quite lucidly the relations between the arts and other spheres of mental action. There is something which appeals to statesmanship, to science, to history, morality and metaphysics. In making this appeal we do not have to wade through dulness to find refreshment, because it is an appeal to commonsense coupled with an appreciation of the significance in things themselves. The title of the book was, it appears, suggested by a discourse rather in the language of Ecclesiastes. If all things are vanity in one sense, we are here shown they are not so in another. If the title suggests Ecclesiastes it also reminds us of Paul of Tarsus. And the latter certainly saw in things much that was beyond their externals. As the author in his introduction says: "The purpose of art is to enable spirit to declare itself in terms of matter." This we believe to be wholly true. And in his conclusion he declares that "the surface is a symbol and the symbol is profound, for among the things which are seen the spirit has its home." This, too, provided we do not spiritualise materialism in the pantheistic sense, is largely true. It is perhaps necessary to say the book is no sermonising tract. It aims at the practical consideration of the underlying factors of art. It considers composition, process, function and province; and it attacks the "Grammar of Design," for its author is himself an architect. And as such he necessarily bears in mind productive enterprise and adventure, while he both reflects himself and stimulates reflection in others. The book is worth reading, and it is readable. H. C. C.

PERSPECTIVE PRACTICAL, or, A Plain and Easy Method of true and lively Representing all Things to

the Eye at a distance, by the Exact *Rules of Art* as Land-skips, Towns, Streets, Palaces, &c. &c. . . . By a Religious Person of the Society of Jesus, a Parisian. Set forth in English by Robert Pucke for the Lovers of Art. 1672.

This book forms an interesting addition to the Library's collection of works on perspective, which commences with the Venetian edition of the ingenious Barbaro, 1578, the first of the long series the Library contains on the art. *Perspective Practicall* is a first edition of the translation from the French of Dubieul, published by the bookseller Robert Pucke "at his Shop over-against the Cross Keys in White-Cross-Street," whence he also issued an earlier work (1670), *The Art of Fair Building*—also in the Library. The supplementary portion of the volume, dealing with the perspective of figures in a "land-skip," or room, contains some graceful engravings by way of illustration. The work is useful as well as quaint, though perhaps its section dealing with sciography leaves somewhat to seek in one or two of its illustrations. C. H. T.

DEUTSCHE BANKUNST DES MITTELALTERS UND DER RENAISSANCE. 40. Königstein im Taunus. 18s. [K. R. Langewiesche.]

What promises to be an interesting series, illustrating architecture in different countries in relation to its setting, whether natural or artificial, opens—perhaps not without propagandist intention—with a volume of 290 excellent photographs of varied and characteristic examples of German architecture from the twelfth to the fifteenth century.

W. H. W.

MICHELIN ILLUSTRATED GUIDES TO THE BATTLEFIELDS (1914-1918)—

THE YSER AND THE BELGIAN COAST.
THE SOMME. VOL. II.

80, 4s. net. [Michelin Tyre Co., Ltd.]

These Guides, of which the Library already contains several, are excellently done. They are specially valuable to those interested in architecture for the information—and in many cases the illustrations—they supply of the state of buildings before, during and after the war. The first-named covers the district south and south-east of Amiens to Compiègne; the second comprises Ostend and Bruges, besides the district indicated by the title.

W. H. W.

REIGLE GENERALE D'ARCHITECTURE des cinq manieres de colonnes, à sçavoir Tuscanne, Dorique, Ionique, Corinthienne et Composite; et enrichi de plusieurs autres, à l'exemple de l'antique; veu, recorrigé et augmenté par l'auteur de cinq autres ordres de colonnes suivant les reigles et doctrines de Vitruve. Au profit de tous les ouvriers besongnans au compas et à l'esquerre. A Escouen, par Jehan Bullant. A Paris, de l'imprimerie de Hierosme de Marnef et Guillaume Cauellat, au Mont S. Hilaire, à l'enseigne du Pelécan, 1568 avec privilège du Roi.

This edition, presented to the Library by Mr. Hiorns, is the 1568 edition. Collated with the 1568 edition in the British Museum, it is found to lack the Title Page, Dedication to Patron, Dedication to Reader, and one leaf (the first) showing the Tuscan, Doric and Ionic Orders. There is also a loose leaf showing the Tuscan and Doric Orders with the woodcuts of the Orders incorrectly named; this leaf does not belong to the 1568 edition and is possibly from an earlier edition—that of 1563 (1564).

W. P. S.

FRAGMENTS TOWARDS THE HISTORY OF STAINED GLASS and the Sister Arts of the Middle Ages. By J. Gilbert. Part I. n.d. (With William Burges' book plate). Presented by Mr. F. R. Hiorns [F.].

THE STUDIO YEAR-BOOK OF APPLIED ART, 1921.

Edited by Geoffrey Holne. 15s. [The Studio, Ltd., London, Paris, New York.]

Contains many charming illustrations by Sydney R. Jones, illustrations in colour by H. Baillie Scott, Ambrose Heal and others. Devoted chiefly to domestic architecture, decorations and furnishings.

H. C. B.

DER STIL LOUIS XVI: Mobiliar und Raum Kunst. By Seymour de Ricci. 22s.

This book contains a fine collection of photographs of rooms and their contents in this manner. The book should form a valuable work of reference for those who are engaged in the design of rooms or furniture based upon this tradition.

H. A. H.

ART IN COMMON LIFE.

Articles and letters under the above heading have appeared in *The Times* almost daily since the subject was introduced by its Special Correspondent in the issue of the 15th March. In the *JOURNAL* for the 19th [pp. 298-300] extracts were given from the earlier articles, citing the suggestions of a group of artists for bringing art down from its present position on the mountain-tops and introducing it into the marketplace, and views on the subject expressed by the President of the Institute, Mr. John W. Simpson, and Sir Reginald Blomfield, R.A., past President.

Sir ASTON WEBB, P.R.A., in an interesting article sub-headed "Making the Best of London" which appeared on the 22nd March, is of opinion that the artists referred to have set themselves a formidable task. Many have attempted it, and have left much beautiful work behind; but there has been no continuity. Alfred Stevens gathered round him a band of workers such as Moody, Sykes, Townroe, and others. They produced buildings, sculpture, paintings, furniture, and other things, many of them now prized by collectors; but they met with little public support. They left no school or permanent tradition, and with the death of the master the band of workers gradually dispersed. Some died in absolute poverty. William Morris, with Burne-Jones, William de Morgan, Philip Webb, and others, succeeded in introducing beauty into objects of everyday life; but again no school was left to carry on and develop the tradition. Walter Crane and the Arts and Crafts Society have had a wide and good influence which is still at work, but the Society has never had proper recognition or the financial assistance needed for the extension of its work. The National Trust has done a great work in the preservation of the beauty spots of England. The London Society is also justifying its existence, its aim being to unite all Londoners who see the necessity for stimulating a wider concern for the beauty of the Capital City, for the preservation of its old charms, and the careful consideration of its new developments. But with all these efforts the æsthetic problem of London remains in urgent need of some systematic solution with a reasonable prospect of continuity.

The Office of Works (continues Sir Aston Webb) is doing excellent work in taking over the care and control of many ancient buildings throughout the country, but they are mistaking their vocation by taking over large building schemes, to the serious detriment of the already much-tried building industry; and they cannot be looked to for an imaginative programme for the beautification of London. One difficulty in any general improvement of London is the inherent indi-

viduality of most Londoners. They fear—and fear rightly—any attempt to turn London into a second-rate Paris, and they therefore seem to dread anything in the nature of schemes. But suppose, for example, that the great educational buildings at South Kensington had been laid out on a comprehensive scheme from the beginning, what a different result might have been obtained. If the L.C.C. had adhered to their original scheme and exercised a general control over the buildings in Kingsway, how different the result might have been. On the other hand, we must all be grateful to the L.C.C. for the delightful view they have given us of the churches of St. Mary-le-Strand and St. Clement Danes,* and of the Law Courts. Regent Street was a fine example of a scheme skilfully carried out at the beginning of last century, though it is being partly rebuilt without a scheme in the beginning of this. Even so the general layout of the street will remain an attraction to London. There seems no reason why, with a more generally cultivated opinion, such a street may not be formed again. The difficulty at present is that nobody seems to care.

When Norman Shaw built his Piccadilly Hotel his elevation to Piccadilly promised to be one of the finest in London, but the right wing was designed by another hand and built of an entirely different height and character, and the whole elevation was thus irretrievably spoiled. A stir was made at the time, but without effect, for hardly anyone seemed to care. What body of opinion really cares now as to what is to replace Devonshire House? It may be the greatest ornament or the greatest eyesore to Piccadilly; but it will soon be too late to care. How many people trouble themselves as to what sort of university London is going to have?—although there will probably be some disappointment when it is found that large sums of money are spent on buildings hidden away behind the British Museum. Ask a graduate of Oxford or Cambridge what the memories of beautiful surroundings have done for him. Surely the greatest ornament to a capital after its Houses of Parliament and Cathedral should be its university—and like them, seen from afar. But, after all, citizens get the city they want, and, if Bloomsbury meets the highest aspirations of Londoners for their university, Bloomsbury it will assuredly be. These important matters of site are usually settled before the experts are consulted, and are mainly decided on points of expediency and cheapness. It seems but little appreciated that the site of a building or piece of sculpture is almost as important as the object itself.

The time has arrived to consider whether anything practical can be done to bring beauty into our everyday life. Many great artists have tried, but much remains to be done before even a slight impression can be made on a vast place like London. Is there anything practical that can be done? Perhaps the American system of a "Commission" might form a basis for discussion, that is to say, a Committee or Commission formed of men of public spirit and acknowledged authority willing to work without fee but with some State recognition and without State control. Such a Commission should consist of a small number of laymen of acknowledged taste and public spirit and of professional artists, with small quarters provided by the Government and a small sum of money for propaganda and other pur-

* For the information of the younger members of the Institute it is recalled that the Holborn-Strand Improvement Scheme as actually carried out—resulting in the fine thoroughfares of Kingsway and Aldwych, with the horns of the latter debouching on to the Strand—was the conception of the R.I.B.A. Standing Committee of that time (1895-96)—see report and plan *JOURNAL*, 21st May 1896. Mr. Alfred Waterhouse, R.A., was chairman of the Committee, and Mr. Owen Fleming the indefatigable Hon. Secretary.—ED.

poses. The members should meet regularly and give advice on all matters affecting the beauty and amenities of the capital. With some such Committee or Commission in existence some at least of the mistakes from which London will ever suffer would surely not have been made. It is not even yet too late to make London not only the best paved and drained capital in Europe, but also the most beautiful.

It should be an encouragement to all who take an interest in London that *The Times* has taken the matter up (concludes Sir Aston Webb), and if the nameless Academicians who started the discussion are in earnest in the matter, and were to ask the Royal Academy to call a meeting of representative men interested in the subject to discuss whether anything can be done, there can be little doubt that the Academy would be willing to accede to such a request.

MR. EDWARD WARREN, F.S.A. (F.), joining in the discussion a day or two later, writes: Sir Aston Webb's suggestion of an Advisory Commission is excellent as regards London, provided that the bodies who are guided by its advice have statutory powers to enforce their decisions, and thus to prevent the civic mistakes, the marring of carefully devised schemes, and the architectural bad manners of which he gives a conspicuous instance in the maiming of Norman Shaw's symmetrical front of the Piccadilly Hotel. If such a commission is to be of real service, definite powers of sanction or rejection upon artistic grounds are necessary, and not merely upon such obedience to sanitary and constructive prescriptions as are now enforced under the London Building Act. It would, if its scope is confined to the capital, leave the rest of Great Britain entirely to the existing local direction or misdirection, whose results are so painfully evident in our provincial cities and towns. Granting that such a body be composed of men of approved knowledge, taste, and experience, and invested with definite powers, direct or indirect, of approval or veto, it might do immense good, and act, not only as an advisory council to the Government, the L.C.C., and the various municipal authorities within the City and County of London, but also as an æsthetic court of appeal for the provinces in respect of town planning schemes and the like.

Sir Aston seems to hint at some sort of educative functions for the suggested commission, since he speaks of propaganda. This seems excellent, if possible. The great thing is to teach the Man in the Street to see, with some discrimination, the street he is in, and to regard buildings as having form, intention, and deliberate human origin, and not merely as inanimate objects which happen "to be there." But, to secure this happy result, the buildings must be really visible, and not masked by incongruous attachments. War, therefore, upon blatant advertisements and enormous lettering should be one of the commission's activities.

I agree with Professor Lethaby that "an atmosphere of civic spirit must be fostered from the elementary school onwards," and there seems to me to be no reason why the first rudiments of architectural appreciation should not be instilled as ingredients of such an atmosphere. This has been, and is being, done at one or two secondary schools with remarkable success.

The Times Art Critic, in an able contribution under the same heading, takes Architecture for his theme. What he says is not new to architects, for it has formed the burden of countless Papers, addresses, and speeches at the Institute during the past eighty-seven years. But it is refreshing, and a

very hopeful sign, to read an article of this sort in a daily paper. The writer says:—

There is a general agreement among those whom *The Times* has consulted on this subject that art does not consist merely of "the fine arts," that it is not the concern of artists and connoisseurs alone, but of all men, and that the common indifference or bewilderment concerning it ought to cease. But this will happen only if the public can be made to understand—first, that art is their concern, and next, that, like morals and science, it is a subject of rational judgment.

Take, for instance, architecture, the most important of all the arts, since, while we can do without pictures or statues, we cannot do without buildings. There is a common notion that architecture is something quite different from building. A building is to be judged by the manner in which it performs its function. Is it well designed for its purpose? Is it well constructed and of good materials? These are questions any man can put, and questions which can be answered by knowledge and common sense. But about architecture the ordinary man does not ask these questions, because he supposes it to be a mystery practised by architects; and, for that reason, he is not interested in it. He does not even look at the new buildings which adorn or deface his streets as he would look at a motor-car; because, as he says, he knows nothing about architecture, supposing it to mean the adornment of buildings with strange irrational features according to principles which have been handed down, like the secrets of Freemasonry, from one generation of architects to another.

Yet the best of architects will tell you that their art does not consist of the adornment of buildings with pilasters or pediments, but is, to begin with, a craft, a science, a conscience, to be judged, like all other crafts and sciences, according to the manner in which it performs a useful function. And of its performance, since all men live in buildings and make use of them, all men ought to be judges.

It is, of course, only too possible to talk nonsense in architecture; but such nonsense is waste, and we all have an interest in preventing a waste so costly and ugly. For waste in buildings is both ugly and lasting, especially in public buildings; and, now that we have so little money to spare on anything, if we waste it in chipping masonry where it should be smooth, and in ornamenting spaces that would look better plain, we may be sure that we shall scamp labour and material where they are more needed. The first law of architecture is this: that, since men have only a certain amount of energy, that energy should be applied first to the most essential points, which are rational design, good workmanship, and good material. But in much of our building these are considered last, and "architecture"—that is, the concealment of structural feebleness, bad workmanship, and bad material with foolish ornament—comes first. Hence, being used to architectural nonsense, we lack the sense of design, which means common sense in building, and so in all things. For that sense must begin with building, and if it is wanting there it will not exist in the other arts.

Professor Anning Bell, for instance, remarks that many of our statues seem "to have been planned only from the feet of the statue to its head, instead of from the base of the pedestal to the head of the statue." That is because the architectural sense of design is lacking, because, if we look at the statue at all, we do not look at its base; and indeed the bases of most of our statues will not bear looking at. But the artists of the Renaissance knew that the base is

part of the statue, and designed it, whether plain or ornamented, to support and enhance the beauty of the statue. They had the sense of design, founded in architecture, which they applied to all things.

This cannot be recovered by our artists until we all recover it by a living interest in the craft and problems of building. And it is strange indeed that we should lack interest in a matter so closely connected with our well-being. People are interested in the design of motor-cars, though many use them and the rest do not live in them, but we live in our houses and our cities. And, apart from material convenience, the vitality of every one is heightened by beautiful streets and lowered by ugly ones. In fact, good architecture is not a luxury, but a symptom of happiness, energy, and foresight; and, where it is lacking, these things are insensibly lessened, even though the mass of men do not know what it is they lack. Bad building, whether mean or foolish in its display of borrowed features, is like bad drains; we may not know that it is bad, but we suffer in our mental health through its badness. You cannot live in an irrational, man-made world without being infected by its unreason in all your ways of thinking. Where men build nonsense, they may be sure that they are thinking, feeling, and living nonsense. And the nonsense that begins in architecture spreads to all the other arts, which are less easily or directly subjected to the test of use and reason. We complain of the caprice and inconsequence of all our arts, from dress and furniture to painting; but, if we cannot build like men of sense, we are not likely to dress or furnish our houses or paint rationally.

Unreason and caprice are the besetting temptations of all the lesser arts and of the arts of pure expression; but in the great ages of art they have been controlled by the sense of design founded in noble and rational building. Where this is lacking, the other arts will lose their way in fantasy and blind experiment, in a jazz-music of mere violence seeking vainly to escape from its own commonplace. That happens now, has been happening with increasing speed for the last twenty years. Art is like a kite without a tail, darting, plunging, but never rising; and the lacking tail is architecture, the art that all men need, that all men can judge at least in its first essentials, and that now all but a few ignore.

CORRESPONDENCE

Common Sense in Building Construction.

To the Editor, JOURNAL R.I.B.A.—

SIR,—I must apologise for again trespassing on your valuable space, but this is, I hope, my final letter on this subject.

Revision of Tredgold is called for by Mr. Waldram—not by me. On page 194 of the JOURNAL we find Tredgold's examples "a veritable orgy of wasted material and unnecessary labour," and Mr. Waldram's floor design shows how thoroughly he despises "old standards" and present-day by-laws. Will he please point out wherein my loading or working fibre stress differs from recognised practice? The L.C.C. Regulations more than cover my loading, and an analysis of

the well-known formula, $W(\text{distributed}) = \frac{bf^2}{L}$, largely employed by Prof. Henry Adams, reveals my fibre stress of 9 cwt. I would remind Mr. Waldram that

"stacks of root crops or coal" are his own stunt and appear nowhere in my letters. It is hardly fair to impute them to me.

The figures in his latest letter are apparently (though incorrectly) "flagiarised" from a paper by an American engineer. Why did Mr. Waldram omit to quote the more appropriate part of that paper, and apply to his beam the loading tabulated by Mr. Schneider for dwellings? I have for many years adopted beam loadings differing from slab loadings, and have sometimes had to defend myself for so doing, but Mr. Waldram's blindfolded method is rather staggering.

In a paper purporting to become of service to designers, Mr. Waldram gives diagrams for comparative floors designed "to the same degree of stiffness," omitting to state the varying loadings employed in each case. Neither in the paper nor in the correspondence does he give any calculations in defence of his design, nor does he give sufficient data to enable his design to be applied to rooms of other dimensions. While he condemns fibre stresses ordinarily used, his own figures remain secret. A bald statement of my inaccuracy appears in Mr. Waldram's last letter. He might at least have put me right as to the dead weight of the floors, which were apparently of half-seasoned timber, probably home-grown.

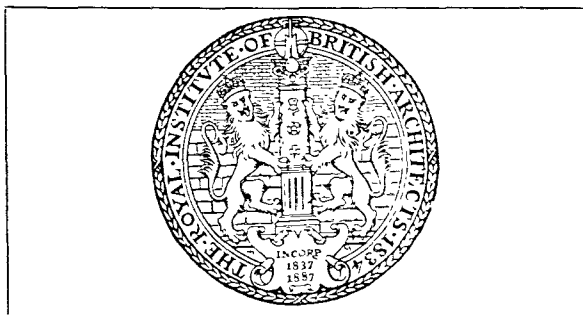
With reference to your note, Mr. Editor, on page 298, I should explain that my objection is not to "beam floors" but to Mr. Waldram's *beam*.—Yours, etc.,

D. WEBSTER ROBERTSON, *Licentiate*.

OBITUARY.

JAMES THOMSON (of the firm of James Thomson & Son, Architects, Airdrie) died on the 19th March, aged forty-two. The eldest son of the late John M. Thomson, architect, he was educated at Airdrie Academy and Glasgow Technical College and Glasgow School of Art, and took up architecture as a profession, eventually joining in business with his father and, on the latter's death, becoming senior partner. His firm were responsible for the carrying out of several sections of the County's housing scheme and also for the Cairnhill part of the Airdrie Town Council's scheme. He was awarded first premium in the competition for designs for the Sir John Wilson Town Hall, Airdrie, and carried out the work. Mr. Thomson was a born artist. His skill in painting and etching was widely recognised, and his works in these branches of art are greatly prized by those fortunate enough to possess them. The funeral at New Monkland was attended by a large and representative company of leading townsmen and personal friends.

WILLIAM EDWARD CLIFTON, who died on 26th February, was elected an Associate in 1881, and proceeded to the Fellowship in 1888. He was the son of the late Edward Norton Clifton, *Fellow*, of 7, East India Avenue, E.C., and served his articles with the late John Whicheard. At the termination of his articles he entered his father's office, in 1885 was admitted into partnership, and carried on the business alone after his father's death in 1889. He was the architect in conjunction with his father, of several large blocks of warehouses in the City of London, also of Finsbury Technical College and St. Dunstan's College, Catford Bridge.



9 CONDUIT STREET, REGENT STREET, W., 9th April 1921.

CHRONICLE.

The Prince of Wales' Nomination to Hon. Fellowship.

THE PRESIDENT at the opening of the proceedings last Monday informed the Meeting that His Royal Highness the Prince of Wales had graciously accepted the Council's nomination for the Honorary Fellowship of the Royal Institute. It was their desire, he said, to offer to that excellent and justly beloved Prince the highest honour at their disposal, and His Royal Highness had deigned to accept it as an indication of his desire to encourage and assist the art of architecture, and to support their great Institute, of which his Royal father was Patron, by enrolling himself in their ranks. The various processes and formalities enjoined by the Charter and Bye-laws had been complied with, and he was now able to put the Prince's name formally for nomination by the General Body. He asked that members should signify their assent not in the ordinary way by a show of hands, but by acclamation. The President's suggestion was adopted and the nomination was ratified by a loud burst of applause. The election will take place on the 2nd May.

Sir Lawrence Weaver's Paper.

There was a large muster of members and their friends and visitors to hear Sir Lawrence Weaver's Paper at the Meeting of the 4th inst. The Council had entertained at dinner that evening the Right Hon. Lord Riddell and Lady Riddell, Sir Frank Newnes, Bart., Sir Sydney Olivier, K.C.M.G., Sir Lawrence and Lady Weaver, Sir Douglas Newton, K.B.E., (Chairman of the Cambridgeshire County Council, and Lady Newton, Colonel Cornwallis, Major A. T. Moore, Mr. S. Mager, C.B.E., Mr. H. D. Vigor, M.B.E., Mr. A. T. A. Dobson, Mr. Edward Hudson and Mr. P. Anderson Graham. All the guests afterwards came on to the meeting. The Right Hon. Lord Kenyon, K.C.V.O., and several officers of the Ministry of Agriculture and Fisheries attended to hear the Paper. A large number of plans and photographs of the buildings erected under the Ministry's direction were hung on the walls of the meeting room, and some forty or more lantern illustrations were shown by Sir Lawrence at the close of his Paper. The illustrations included also a small model of a timber-built cottage with thatched roof.

Higher Buildings for London: Deputations to the London County Council and the City Lands Committee.

An outcome of the Papers read last Session by Mr. Austen Hall [F.] on American Department Buildings [JOURNAL R.I.B.A. 10th April 1920] and by Mr. Delissa Joseph [F.] on Higher Buildings for London [*ibid.*, 8th May 1920] was the appointment by the Council of a Committee, known as the Building Act Committee, to consider and report upon the reform of the London Buildings Acts. The Committee is composed of the following members: The President, the Hon. Secretary, Professor S. D. Ad-head, Messrs. Walter Cave, A. W. S. Cross, C. A. Daubney, E. Guy Dawber, F.S.A., Matt Dawson, Sir Banister Fletcher, H. Austen Hall, E. Stanley Hall, George Hubbard, F.S.A., J. J. Joass, Delissa Joseph, C. Stanley Peach, Sydney Perks, F.S.A., Digby L. Solomon, B.Sc., Sir Alexander Stenning, and Sir Henry Tanner, C.B., I.S.O.

A deputation from the Committee, consisting of Mr. A. W. S. Cross, Vice-President,* Mr. Delissa Joseph, Sir Henry Tanner, C.B., Mr. Sydney Perks, and Mr. Digby Solomon, waited upon the Building Act Committee of the London County Council on the 21st February to submit suggestions for the amendment of the Act and to ascertain the feeling of the Council upon the matter. The amendments put forward were as follows:—

1. In the case of a building in a street of greater width than 80 feet, an increased height should be permitted, equal to the greater width of the street, with two fire-resisting roof storeys above the same, but in no case a greater height than 150 feet, exclusive of two storeys in the roof.
2. That in the case of buildings opposite parks, squares and public gardens not less than 150 feet wide, or facing commons, open spaces and the riverside, or when facing down the length of a street, such buildings should be permitted to a height of 150 feet exclusive of two storeys in the roof.
3. That in the case of the City of London, buildings 120 feet high, exclusive of two storeys in the roof, should be permitted in any street, irrespective of its width or date.
4. That such consents should be subject to:
 - (a) the structures being erected of fire-resisting material;
 - (b) their being fitted with secondary staircases, of which at least one side should be external, offering an alternative means of escape;
 - (c) The treads and risers of such secondary staircases being solid;
 - (d) the buildings being fitted with dry vertical pipes, with nozzles at the base of the street frontage for attaching to the fire engines, and with hose pipes leading from the vertical dry pipes at each floor level;
 - (e) in the case of domestic buildings, the rear line being—as in the present Act—within an angle of 63½ degrees from 16 feet above pavement level;
 - (f) in the case of domestic buildings, section 45 of the present Act still applying to internal courts;
 - (g) in the case of commercial buildings, all internal courts having fresh air ducts at the bases thereof.

Further, that the Regulations of the London County Council, under Part III. of their General Powers Act of 1908, should be so modified as to permit buildings of unlimited cubic content to be constructed, notwithstanding that such buildings exceed sixty feet in height, subject to the safeguards provided in the Regulations.

* The President had intended to accompany the deputation but was prevented owing to a severe cold.

At the opening of the interview it was mentioned by a member of the deputation that the President wished it to be clearly understood that the deputation came from the Institute Building Act Committee, not as officially representing the Institute: the views put forward were those of the Committee and had not yet been placed formally before the Institute Council.

The case for amendment was presented by Mr. Delissa Joseph, who, in conclusion, pointed out that since the passing of the Act 25 years ago those responsible for its administration had become aware of its defects, and, should revision be decided on, the Institute Committee were prepared to place at the London County Council's disposal the knowledge and experience they had acquired on the matter.

Mr. Andrew T. Taylor, of the L.C.C. Committee, replying to the point that higher buildings were wanted owing to the shortage of office accommodation in the City, pointed out that half the buildings in the City were considerably lower than the hundred feet allowed by the Act; in Bloomsbury, again, the buildings generally were not half the statutory height. The remedy for the shortage was to raise these buildings to the maximum height.

The deputation replied that this was being done as fast as the leases fall in; but it was insufficient to cope with the shortage.

Mr. Walter Reynolds, Chairman of the L.C.C. Building Acts Committee, said that they had been very pleased to meet the deputation. He could not say that the Committee were exactly sympathetic, but they had receptive minds and a great impression had been made upon them by what had been said. The Committee stood for progress, but it must be proved to them that progress lay in the direction indicated. "If," said the Chairman, "you can show us how to deal with these tall buildings in case of fire, you will have got over nine-tenths of the difficulties."

On the 9th March a deputation from the same Committee, consisting of Mr. A. W. S. Cross, Sir Henry Tanner, Mr. Delissa Joseph, Mr. George Hubbard, F.S.A., Mr. Digby Solomon and Mr. C. A. Daubney, waited upon the City Lands Committee of the Corporation of London in the Guildhall to urge that in the City of London buildings 120 feet high, exclusive of two storeys in the roof, should be permitted in any street, irrespective of its width or date.

Sir Banister Fletcher was in the chair, and Mr. Delissa Joseph addressed the Committee on behalf of the deputation.

Having stated the object of the Committee, Mr. Joseph said that before reporting to the Institute Council they wished to ascertain what measure of support they could hope to receive from the great public authorities concerned with the development of London. He pointed out that the clause of the Building Act which defined that a building should not be more than eighty feet high, with two storeys in the roof, was really a permissive clause, as it went on to

say that with the consent of the London County Council a greater height might be permitted. Here was an opportunity, without touching the Act of Parliament, to enable London to be adequately developed as leases fall in, merely by inducing the County Council to permit buildings of a greater height than eighty feet in suitable situations. The City was the centre of the commerce, the banking, the finance and the shipping of the world, and these activities cannot at present find the accommodation to which they are entitled within the one square mile of the City. The only remedy was higher buildings.

Mr. Bird, replying for the City Lands Committee, intimated that the whole question should have their consideration. They realised that the City covered only one square mile and that no more buildings could be squeezed into it. Looking at Throgmorton Avenue and streets of that kind, with hundreds of people working in basements and cellars two or three storeys underground, it seemed possible that they should make some great effort to induce the Building Authority to allow higher buildings in the City. He had made a study of the matter and did not see why the City Lands Committee should not assist in the movement.

The Royal Engineers' Tribute to the Engineering Profession.

The President, Mr. John W. Simpson, and Mr. Maurice Webb, D.S.O., M.C., Member of Council, were present as representatives of the Institute at the Dinner given by the Corps of Royal Engineers at the Headquarters Mess, Chatham, on the 17th March, in honour of the principal Engineering Institutions whose members had served in, or in connection with, the Royal Engineers during the late war.

The Adjutant-General, Lieutenant-General Sir GEORGE MACDONOGH, K.C.B., K.C.M.G., in proposing the health of the guests, said he felt greatly honoured at being charged with the duty of welcoming among them the distinguished chiefs of the civil engineering profession, together with the representatives of the University of Cambridge, the Royal Institute of British Architects, and the Surveyors' Institution. As one of the most senior active officers of the Corps, and also as a member of the Army Council, he could assure their civilian colleagues of the very high appreciation they entertained of all they had done for the R.E. branch of the Service, and of their desire that the most intimate relations should be established between the military and the civil members of the great service of engineering. That service was becoming daily more important. The Army was going through the same process as the Navy did fifty or sixty years ago, and was becoming rapidly mechanised. At the beginning of the war 1,831 officers and 24,172 other ranks were mobilised for R.E. and Signals: by the end of the war those numbers had risen to 17,711 officers and 322,739 other ranks, exclusive of Dominion and Indian troops, and their original 15 Field Companies had grown to 210. As Adjutant-General one of his chief concerns was the provision of *personnel*, and one of his most difficult tasks was to arrange for the supply of the great number of tradesmen that are needed. It could only be done by the whole-hearted co-operation of the engineering profession. It was essential that their officers should

have the best engineering training that could be given, and he offered the heartfelt thanks, both of the Corps and of the Army Council, to the University of Cambridge, which had so generously placed its resources at their disposal, and to the three great Engineering Institutions which were permitting the R.E. officers to qualify for their diplomas. He looked upon the regulation which required that in future all officers should hold one of these diplomas before being qualified to draw Engineer or Corps pay as being one of the most important innovations which the War Office had introduced since the war, as it would ensure not merely that their officers reached a technical standard accepted by the outside world, but also that they should be linked indissolubly to their civilian *confrères*. He hoped before long that the re-creation of the Militia would be taken in hand, and he felt sure the civil profession would give their generous assistance in finding both officers and men. In the recent Army Order reorganising the Reserve of Officers special provision was made for civilian engineers to be noted for employment in special technical subdivisions. He appealed to the great Engineering Institutions, and to the Universities, to bring to the notice of their members the conditions in which commissions in the Reserve of Officers can be obtained, and to encourage them in every way to accept them. There was another matter in which they looked to their civilian friends for help—viz., in connection with scientific research. The R.E. Board had been formed with a view to the prosecution of such research. It acted as an intermediary between the War Office and the civil productive engineering resources of the country. Among its members and associates were representatives of experimental and educational establishments of all Government departments concerned and of such Engineering Institutions as the Department of Scientific and Industrial Research, Cambridge University faculty, and Institutions of Civil, Mechanical, and Electrical Engineers. In concluding, he would like to say a word on the very close co-operation and on the good feeling which had subsisted during the war between the Corps of Royal Engineers and the civil engineers in all ranks and branches. The war had drawn them together as nothing else would have done; it had engineered feelings of mutual admiration and respect. They had learnt to know each other, to feel that they were all members of one great profession. They might feel confident that that sense of solidarity would always be preserved, and that in years to come, far from drifting apart, they would be drawn still closer together, and thus contribute in an ever-increasing extent to the benefit of the State.

Major-General Sir GEORGE SCOTT-MONCRIEFF, K.C.B., K.C.M.G., in seconding the toast, referred to the problems which confronted the military authorities at the beginning of the war—such questions as accommodation at home for men, for the sick, for horses; warlike stores and aircraft expansion; fortification of naval bases; overseas work, etc. Most of the work then admirably executed had passed away in the exigencies of war; but some remained, and it was hoped would always remain—*e.g.*, the water supply which linked Palestine with Egypt; the great ports at Kantara and Basra; the improved docks at Boulogne, Dieppe, and Rouen; and many other permanent improvements. As the engineers of the Romans and of Alexander the Great left their mark to this day in the theatres of war they traversed, so in future generations the work of the civil engineers of our Empire would remain as a witness to their skill and their enterprise. Therefore the Corps of Royal Engineers welcomed their representatives and thanked them for their services. Although the high-toned patriotism of

their service needed no such paltry thanks as he could express, it might at least be a source of satisfaction to them to know that their services, so quietly and unostentatiously rendered, were appreciated by those who worked with them and could realise to the full how much was entailed and what noble contribution had been rendered by them to the cause of victory.

Since the Dinner the following correspondence has passed between the President and Major-General Thuillier, Commandant, School of Military Engineering :—

21st March, 1921.

DEAR GENERAL THUILLIER,—Will you permit me to supplement what was said on behalf of the Royal Institute of British Architects at the dinner on Thursday by a personal expression of their very high appreciation of the delicate and gracious compliment paid to them by the R.E. Corps Committee, together with the thanks of Mr. Webb and myself to all the officers for their most kind attentions and hospitality.

Your desire that the military and civil branches of the profession should be kept in touch with each other is very cordially reciprocated by the Royal Institute, and its great organisation throughout the British Empire is placed at your service for such a purpose. The fact that many hundreds of architects were engaged with the R.E. during the war in every kind of technical operation indicates the fertile recruiting ground available in case of need; and the normal education of architects would appear to be a sound basis of training for R.E. officers. With minds formed to plan schemes carefully in advance, and to pay meticulous attention to detail in their execution, their natural destination in warfare is the Corps of Royal Engineers—that essentially scientific and professional body of soldiers in which correct practice is inspired by genius and raised to the level of an art.

It may, perhaps, be possible to assist in maintaining contact between our two bodies by an interchange of students in connection with the Reserve of Officers, and we shall be happy to discuss with you any suggestions which you may think useful in this respect. Architects, moreover, are concerned especially with the artistic expression—which is synonymous with the economic expression—of construction, and would gladly advise and help, whenever desired, in the design of your monumental barracks and other military buildings.

Believe me, dear General Thuillier, Your very obedient faithful servant,

JOHN W. SIMPSON, President.

General Thuillier replies :—

30th March, 1921.

DEAR MR. SIMPSON,—I thank you for your very kind and cordial letter of the 21st inst. When the War Office takes up, as I hope it will before long, the question of the formation, from the various branches of the engineering profession, of a body of Special Reserve Officers for duty with the Royal Engineers in time of war, I will not fail to recommend that the Royal Institute of British Architects should be invited

to nominate a proportion of them, and that they should be given a course of training at the School of Military Engineering, and I hope that this may come about. . . . —I remain, Yours very truly,

H. F. THUILLIER, Major-General.

**Notes from the Minutes of the Council Meeting,
14th March 1921.**

Conditions of Building Contracts.—The President reported that a friendly and informal conference had taken place between several members of the R.I.B.A. Council and several leading master builders on the subject of Conditions of Contract, and that it was hoped that formal negotiations would be resumed on a satisfactory basis at an early date.

The Building Industries Consultative Board.—Mr. Delissa Joseph was appointed to serve as a representative of the R.I.B.A. on the Board in place of the late Mr. Henry T. Hare.

Building Trades Parliament.—Mr. George Hubbard was appointed to serve as a representative of the R.I.B.A. on the Building Trades Parliament in place of Mr. Paul Waterhouse, resigned.

Brewers' Company's Licensed House Competition.—The Council adopted the award of the President, who acted as Assessor in the competition, and ordered the award to be published and the designs to be exhibited.

Royal Commission on Fire Prevention, etc.—At the invitation of the Home Secretary the Council nominated Mr. Digby L. Solomon to serve as a member of this Commission.

The Government : Ministerial Changes.

The Right Hon. Christopher Addison, M.D., M.P., to be Minister without Portfolio, late Minister of Health.

The Right Hon. Sir Alfred Mond, Bt., M.P., to be Minister of Health, late First Commissioner of Works.

The Right Hon. the Earl of Crawford and Balcarres, to be First Commissioner of Works, late Chancellor of the Duchy of Lancaster. Lord Crawford is an Hon. Associate of the Institute, having been elected in 1903 when he had a seat in the House of Commons and was a Junior Lord of the Treasury. His appointment to the Office of Works is universally acclaimed. A writer in *The Observer* says : " With Lord Crawford's artistic taste, apt to know the right thing and decisive in rejecting the wrong, nobody ever was better fitted as First Commissioner of Works." Members who have missed it should not fail to look up in the JOURNAL the brilliant speech he delivered at the Institute when moving the vote of thanks to the President for his Address at the Opening Meeting last November.

Architects for Birmingham Housing Schemes.

The Birmingham Housing and Estates Committee have decided to place in the hands of a panel of architects—mainly ex-Service men—the development of three estates : The Wakeman-Newport Estate, with sites in Sandbourne Road, Brook Hill Road, Moat House Road, Naseby Road, Nansen Road, Ward End

Park Road, and Lime Tree Road : the interior portion of the Farcroft Estate, Handsworth ; and an estate in Linden Road and Manor Road, Stechford. It is possible that a further estate will also be handed over to them for development.

The above announcement, which appeared in a Birmingham paper recently, is the very gratifying outcome of the long-continued efforts of the Birmingham Architectural Association to get a panel of architects recognised and placed on a firm footing for housing work in their district instead of all such work being handed over to the Housing and Estates staff of the Birmingham City authorities. The Association will have the hearty congratulations of the profession on this happy result of their labours.

The Cost of Brickwork.

Mr. Thomas Dinwiddy [F.], in a letter to *The Daily Telegraph* of the 23rd March, writes :—

We hear indignant protests when the trade unions are charged with obstructing building by "slow-stroke" tactics, and proof is demanded. Opportunities to test are rare, but it has fallen to my lot to offer evidence. Erecting a dwarf wall, a bricklayer and labourer contrived in two days of 8½ hours to limit the bricks laid to 125. Their joint wages amounted to 25s. 6d. a day ; the cost, therefore, of labour was fivepence for every brick. The standard of value is at per rod of 272 feet super 1½-brick thick, or about 4,200 bricks. At this rate of fivepence a brick, labour per rod would exceed £80. When the writer first practised, fifty years ago, labour was taken piece-work (including erecting scaffolds) at 50s. a rod, the men laying about 1,000 bricks a day. As recently as the date of the war, brickwork with all materials and profit was about £15 a rod ; it has now increased threefold. As to the causes, beware of being put off the labour scent by the hue and cry after alleged merchants' rings and profiteering. Inflated wages and shackled output figures in all materials. For example, the bedrock of bricks is a few yards of clay costing shillings ; from that stage all is labour, handling, and wages, until about £5 a thousand is reached for the finished article. Labour takes toll again on the building, and assuming an average of 300 bricks a day (as against the no doubt abnormal 60 vouched for), takes £19 a rod for a further share.

The Roof of Westminster Hall.

Mr. Austin Brereton, in *The Observer* of the 3rd April, referring to a question put by a correspondent as to what wood the roof of Westminster Hall is composed of, says :—

The answer is to be found in *London Past and Present*, by the late Henry B. Wheatley, the most reliable authority upon Old London of all our modern writers upon this fascinating subject. Westminster Hall, he says, " was originally built in the reign of William Rufus, and is supposed to have been a nave and aisles divided by timber posts. . . . The present hall was formed 1397-1399 (in the last three years of Richard II.), when the walls were carried up two feet higher, the windows altered, and a stately porch and new roof constructed according to the design of Master Henry de Yeveley, master mason. The stone-moulding or string-course that runs round the hall preserves the white hart couchant, the favourite device of Richard II. The roof, with its hammer-beams (carved with angels), is of oak, and the finest of its kind in this country." A century ago the roof was thoroughly repaired, forty loads of oak, obtained from old ships broken up in Portsmouth Dockyard, being

used in the process. The north-end part of the roof, which was uncompleted, was finished at the same time.

International Art.

Sir C. Hereules Read, President of the British Committee, writes that it is proposed that a "Congrès d'Histoire de l'Art" shall be held in Paris at the Sorbonne for about ten days, from 26th September next. It is to be international in character, and will deal with both Eastern and Western art, with music and with art teaching, including the functions of museums. The accepted languages for contributions are French, English, Italian, Spanish and German. In addition to the reading of papers there will be exhibitions illustrating historical French art, while a lighter side will be provided by the excursions that are planned to Chartres, Reims, Rouen, Versailles and Chantilly, and the theatrical performances and concerts in honour of the members of the Congress and their families. Our French friends promise instruction and amusement under very agreeable conditions, and they hope that a considerable membership will be enrolled in England.

The Congress is under the honorary presidency of M. Henri Lemonnier, with M. André Michel as president, and MM. Koechlin, Comte Paul Durieu, and Emile Male as vice-presidents—a truly distinguished list. The British Committee is both influential and representative, the secretaries being Mr. Laurence Binyon, Mr. D. S. MacColl and Mr. Eric Maclagan. The office of treasurer has been undertaken by Mr. F. A. White, 170, Queen's Gate, S.W.7, to whom all applications for membership should be sent. The price of a ticket is 12s., and for a lady member of applicant's family 8s.

The general secretaries of the Paris Committee have kindly undertaken to furnish information about hotels, etc., in Paris if application be made before 21st July to the Secrétariat Général du Congrès d'Histoire de l'Art, Palais du Louvre (Pav. de Marsan), Paris.

Appointments, &c.

The Department of Architecture and Civic Design, which was started less than a year ago at the Technical College, Cardiff, under the leadership of Mr. W. S. Purchon, M.A. [A.], made such a promising start that the appointment of a full-time assistant became a necessity, and at a meeting of the City Council of 14th March, Mr. Richard H. Winder, M.A. [A.], of Oldham, was appointed to this position. Mr. Winder, who studied under Professor Dickie at the University of Manchester, obtained the degree of B.A. with 1st Class Honours in Architecture, and after a period of post-graduate study was awarded the Master's degree.

On the recommendation of Prof. Percy Gardner, The Committee for Classical Archaeology at Oxford have appointed Mr. Theodore Fyfe [F.] to give a course of six lectures or demonstrations in Greek Architecture during the term beginning 25th April next.

In connection with the Extension and Reconstruction Scheme of University College Hospital, the Committee have appointed Mr. Paul Waterhouse and Mr. George Hornblower as joint architects. Mr. Waterhouse collaborated with his father, the late Alfred Waterhouse, R.A., in the design of the hospital buildings, which he brought to completion after his father's retirement, and he was also the sole architect of the Medical School. Mr. Hornblower has been for many years the Consulting Architect to the Hospital Committee.

Mr. H. R. Collins [A.], of Cambridge, has been appointed architectural assistant in the Department of the Chester City Engineer and Surveyor.

COMPETITIONS.

Qasr el 'Aini Hospital and School (Cairo).

The Egyptian Government invite competitive designs for the new buildings of Qasr el 'Aini Hospital and School at Cairo, with accommodation for 1,225 beds. The competition will be conducted in two stages, the *first* of which (preliminary) is open to all architects: the *second* (final) will be restricted to twelve architects, six of whom will be selected by the Assessor from those submitting the most meritorious designs in the preliminary competition, and six others nominated by H.H. Government with the advice of the Assessor, Mr. John W. Simpson, President of the Royal Institute of British Architects, Membre corr. de l'Institut de France, whose judgment will be final and binding. All applications for Particulars of the Competition should be addressed to H.E. the Minister of Public Works, Cairo, Egypt, or to the Secretary, Royal Institute of British Architects, 9 Conduit Street, London, W.1. Such applications must be accompanied by a cheque or draft for three Egyptian pounds (or its equivalent in sterling), which sum will be returned to all applicants who submit a *bona fide* design, or who return the particulars in good condition within one month from the date of their application. Designs in the preliminary competition must be lodged not later than 3rd October 1921.

The "Particulars of the Competition" comprise the following documents:—Conditions of Competition (in duplicate); Instructions to Competitors (Preliminary Competition) and corrigenda thereto; Note on Local Conditions: Plan A 1 (site of the Hospital, Rodah Island); Plan A 2 (Cairo and environs); Envelope.

The following is extracted from the "Conditions of Competition":—

Competitors submitting *bona fide* designs in the final competition will each receive an honorarium of five hundred Egyptian pounds, and the author of the design placed *second* will receive a premium of five hundred Egyptian pounds in addition to his invitation honorarium.

It is the intention of H.H. Government to appoint the competitor whose design is placed *first* by the assessor in the final competition as architect to carry out the new buildings, in which case the honorarium payable under clause I will be deemed to be a payment on account of the architect's commission hereinafter described. Should any disability of such competitor, or other unforeseen circumstance, render it, in the opinion of H.H. Government with the approval of the assessor, contrary to the public interest to appoint as architect the competitor whose design is placed first by the assessor, H.H. Government may, with the approval of the assessor, adopt the design of another competitor, and proceed with it, subject to the foregoing conditions, as though it had been the design first selected, or may decline to proceed with any of the designs submitted, and the authors thereof, including that of the design placed first, shall be entitled to no payment beyond the aforesaid honorarium of five hundred Egyptian pounds. H.H. Government reserve the right to purchase the copyright of any design submitted in the final competition other than of that placed first, for the sum of five hundred Egyptian pounds additional to the honorarium payable under clause I hereof.

If no instructions are given by H.H. Government to the

author of the design placed first by the assessor in the final competition, within twelve months of the assessor's award therein, authorising him to act as architect for and proceed with the new buildings, the said author shall in such case receive as payment for his services in connection with the preparation of the competition drawings the sum of ten thousand Egyptian pounds. If he be subsequently given such instructions to act and proceed, the sum thus previously paid to him shall form part of his ultimate commission.

Subject to the provisions of the preceding clauses the architect appointed to proceed with and carry out the new buildings will receive remuneration according to the Schedule of Charges sanctioned by the Royal Institute of British Architects, calculated on the cost of the work executed under his control. . . . The architect will, however, be required, without additional charge, to deposit with H.H. Government on completion of the buildings a complete set of the contract drawings, amended as necessary to correspond with the work as executed, showing clearly all drainage, gas, water, electric, and other service pipes, tubes, and wiring.

Designs in the preliminary competition properly packed, labelled "Qasr el 'Aini Hospital Competition" and addressed to "His Excellency the Minister of Public Works, Cairo," must be delivered on or before the 3rd October, 1921. The date for reception of designs in the final competition will be subsequently communicated to those qualified to take part therein.

All questions which competitors may desire to ask respecting the "Conditions of Competition" and "Instructions to Competitors" for the preliminary competition, must be sent in writing to the assessor at 3 Verulam Buildings, Gray's Inn, London, W.C.1, on or before the 6th June, 1921.

To give an idea of the magnitude of the scheme, quotation is made from the "Instructions to Competitors (Preliminary Competition)," a document consisting of 21 pp. fep., closely printed. The hospital is to be designed in two main divisions, male and female, comprising the following sections:—

A.—*Male Division*. (Sections):—(a) Surgical wards and accessories (350 beds); (b) operation theatres (*see also Harcem Division*); (c) medical wards and accessories (250 beds); (d) clinical instruction; (e) central pharmacy and sterilization; (f) reception and casualties; (g) radiology; (h) isolation wards and accessories (*see also Harcem Division*); (i) central kitchens and dining rooms; (k) mortuary and post-mortem; (l) laundry and disinfection; (m) medical school and pathology; (n) dental school and clinic; (o) steward and storekeeper; (p) power house and plant; (q) small mosque; (r) administrative offices; (s) shelters for tuberculous cases; (t) resident and house officers' quarters.

B.—*Harcem Division*. (Sections):—(a) Surgical wards and accessories (325 beds); (b) operation theatres (*see also Male Division*); (c) gynaecological operation theatres; (d) medical wards and accessories (100 beds); (e) isolation wards (*see also Male Division*); (f) infant welfare; (g) sisters' home; (h) staff nurses (*hakimas*) and probationers' home; (i) extern work.

C.—*Out-Patients' Department*.—(a) General surgical and medical; (b) shelters for anthelmintic cases (male and female).

D.—*Students' Hostel and Club*.

E.—*Director's House*.

The Operation Theatres A (b) and B (b) number ten in all, centralised in one special block, the accommodation to include 6 anaesthetic rooms, 4 sterilizing rooms, and 4 store-rooms; also 4 rooms for nursing sisters, 2 waiting rooms, night orderlies' room; staff lavatory, bath-room, and changing room; surgeons' room, with lavatory; plaster-room (400 square feet), with splint room (200 square feet).

The Medical School and Pathology Department is to accommodate 600 students, and to consist of (1) *Anatomy Department*; (2) *Physiology Department*; (3) *Pharmacology Department*; (4) *Pathology Department*; (5) *Library*, etc.

COMPETITIONS OPEN.

Qasr el 'Aini Hospital and School, Cairo.

Bengal Council Chamber.

Canadian Battlefields Memorials.

The conditions and other documents relating to the above Competitions may be consulted in the Library.

Renfrew, Rothesay and Queensbury War Memorials.

Members are requested to take no part in these competitions until they hear from the Institute that the Conditions have been satisfactorily awarded.

MINUTES. XI.

At the Eleventh General Meeting (Ordinary) of the Session 1920-21, held Monday, 4th April 1921, at 8.30 p.m. —Present: Mr. John W. Simpson, *President*, in the Chair; 42 Fellows (including 12 members of the Council), 40 Associates (including 2 members of the Council), 4 Licentiates, 1 Hon. Associate, and numerous visitors—the Minutes of the Meeting held 14th March having been published in the *JOURNAL* were taken as read and signed as correct.

The decease was announced of Mr. James Thomson, of Airdrie, *Licentiate*.

A number of members attending for the first time since their election were formally admitted by the President.

The President announced that the Council had nominated His Royal Highness the Prince of Wales for election as Honorary Fellow of the Royal Institute.

Sir Lawrence Weaver, K.B.E. [*Hon. A.*], having read a Paper on THE LAND SETTLEMENT BUILDING WORK OF THE MINISTRY OF AGRICULTURE AND FISHERIES and illustrated it by plans and photographs shown by the lantern, a discussion ensued, and a vote of thanks was passed to him by acclamation on the motion of the Right Hon. Lord Riddell, seconded by Sir Douglas Newton, K.B.E.

Sir Lawrence Weaver having responded, the proceedings closed and the Meeting terminated at 10.25 p.m.

Building Exhibition, Olympia, April 12-26, 1921.

The Architects' Welcome Club (under the management of the Royal Institute, the Society of Architects, and the Architectural Association) is located in the Prince's Rooms, the accommodation including two club rooms, where newspapers and technical journals will be available for reference and light refreshments obtainable at tariff charges. There will also be a Presidents' room, and an inquiry office where an official representative of the Club will be in attendance.

Tuesday, 12th April.—Opening Day of the Exhibition and of the Architects' Welcome Club at the Prince's Rooms. All Architects and their friends visiting the Exhibition are cordially invited to use the Club premises.

Saturday, 16th April.—3 p.m. Reception in the Pillar Hall by the Presidents and Councils of the R.I.B.A., the Society of Architects, and the Architectural Association to Architects and other guests. Admission by ticket to be obtained from the Secretary R.I.B.A., or one of the other Organising Secretaries.

Friday, 22nd April. 6.30 p.m. for 7 p.m.—Public Dinner in the Pillar Hall, when representatives of the Royal Institute,

the Society of Architects, and the Architectural Association, kindred Professions, Public Bodies, the Building Industry, Government Departments, and Foreign Architects will be the guests of the Club. Tickets, price 12s. 6d., not including wine, may be obtained from any of the Organising Secretaries, and, during the Exhibition, at the Club, by Architects and their friends, including ladies, exhibitors, and any others who may desire to attend.

Other arrangements made by the Architects' Committee include an important and representative exhibition of architectural students' work in the Large Conference Hall. All the leading schools in the country will be represented and various prize drawings of the year will be shown. The Exhibition is open to the public generally.

Two public lectures will be held, at 6 p.m., on the following dates:—

15th April.—"The Effect of Building Materials on Architecture," by Professor Beresford Pite [F.].

19th April.—"Our Towns and Villages and How we Spoil Them," by Raymond Unwin [F.].

These lectures have been arranged for members of the public exhibiting at or visiting the Exhibition, to interest them in architecture generally. Admission is free, and it is hoped that architects will do their best to make the lectures known.

There will be an exhibition of cinematograph films, open to the public, illustrating various building processes and manufacture, every evening at 7.45 in the Large Conference Hall. Admission free.

Tickets for the Exhibition, the Architects' Welcome Club Programme, and the Public Dinner leaflet, are enclosed with the current issue of the JOURNAL.

Complimentary season tickets of admission to the Exhibition may be obtained from the Secretary R.I.B.A., 9 Conduit Street, London, W.1. the Secretary of the Society of Architects, 28 Bedford Square, London, W.C.1. and the Secretary of the Architectural Association, 34 and 35 Bedford Square, London, W.C.1. Cards of invitation to, or tickets for, any of the social functions or lectures, will admit the holders to the Exhibition on the day for which the invitation or ticket is issued.

NOTICES.

Election of Members, 6th June, 1921.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 2nd May, 1921.

AS FELLOWS (6).

BIDLAKE: WILLIAM HENRY, M.A. Cantab. [A. 1888], 37 Waterloo Street, Birmingham, and 72 Pershore Road, Edgbaston, Birmingham.

HILL: JOSEPH [A. 1913], 45 Finsbury Pavement, E.C. 2, and 21 Surbiton Hill Park, Surbiton, Surrey.

JOHNSON: GEORGE ALERED [A. 1905], 2 Siking Road, Shanghai.

MILLARD: WALTER JOHN NASH [A. 1885], Dell View, Hitchin, Herts.

SIMPSON: CECIL HAMILTON [A. 1909], 24 Bloomsbury Square, W.C., and 48 Luttrell Avenue, Putney, S.W.15.

SINCLAIR: WILLIAM BRAXTON [A. 1912], Council Offices, New Malden, Surrey, and Cranford, The Crescent, Sidecup, Kent.

AS ASSOCIATES (19).

BARRY: CARYL ARTHUR RANSOME [S. 1912—*Special War Exemption*], Parliament Mansions, Victoria Street, S.W.1.

BENNET: JAMES SPALDING [S. 1920—*Special War Exemption*], 156 Braid Road, Edinburgh.

BIDDULPH-PINCHARD: CHARLES HENRY [*Special War Examination*], 9 Staple Inn, Holborn, W.C.

*BRODIE: JAMES [S. 1909—*Special War Exemption*], 3 Palace View, Fulford, York.

BURNET: FRANK RUSSELL [S. 1920—*Special War Exemption*], Paignton, Kilmacollm, N.B.

CHANT: ARTHUR GUY, P.A.S.I. [*Special War Examination*], 35 Spencer Street, Carlisle.

*COOPER: FREDERIC ROLAND [S. 1908—*Special War Exemption*], "Southdene," Headlands, Kettering.

FORBES: ARTHUR B. [*Special War Examination*], 250 Wilson Ave., N.D.G., Montreal, Canada.

LUNAN: LESLIE GORDON [*Special War Examination*], c/o H. V. Lanchester, Esq., 1 Abbot Road, Lucknow.

MCCONNELL: LEONARD [*Special War Examination*], 34 Bedford Square, W.C.1.

McEVERS: HAROLD ERIC [*Special War Examination*], 393 Mountain Street, Montreal, Canada.

MACE: THOMAS HENRY [*Special War Examination*], 2057 Hutchison Street, Montreal, Canada.

MERRILL: ALFRED [*Special War Examination*], 249 Manor Lane, Lee, S.E.12.

MILNE: JAMES [S. 1920—*Special War Exemption*], 39 Smith Street, Hillhead, Glasgow.

RAY: ARTHUR GORDON [*Special War Examination*], 495 Lansdowne Ave., Westmount, Quebec, Canada.

TURNBULL: BERNARD WILLIAM [*Special War Examination*], 8 Camden Road, N.W.1.

WEBB: JOHN ADAMS [S. 1914—*Special War Exemption*], Burton Hill, Melton Mowbray.

WEEKES: NORMAN BARNETT, F.S.I. [*Special War Examination*], Housing Department, Town Hall, Rochdale.

YOUNG: THOMAS PEACH WEIR [S. 1920—*Special War Exemption*], c/o P. MacGregor Chalmers, Esq., 95 Bath Street, Glasgow.

NOTE.—The two candidates marked * have been the subject of special consideration by the Council, being put forward as special cases in accordance with recommendations Nos. 2, 3 and 4 passed at the Conference with representatives of Allied Societies on 19th January 1920, and unanimously approved by the Council on 2nd February 1920.

THE TWELFTH GENERAL MEETING (Ordinary) of the Session 1920-21 will be held MONDAY, 18th April, at 8 p.m., for the following purposes:—

To read the Minutes of the Meeting held 4th April: formally to admit members attending for the first time since their election.

To read the following Paper:—

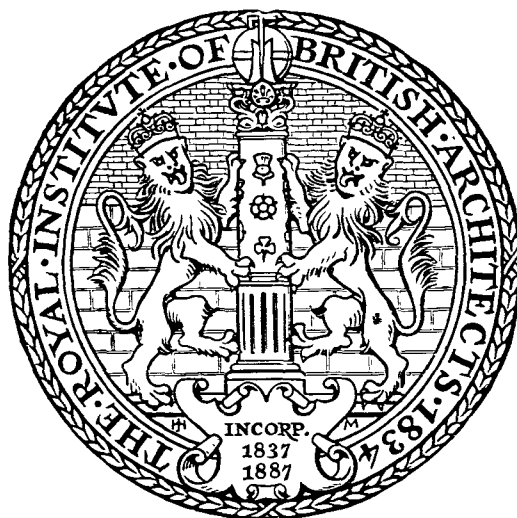
THE UTILITY OF RESEARCH ON BUILDING MATERIALS.

By ALAN E. MUNBY, M.A. Cantab. [F.].

APPLICATIONS are invited for the appointment of Assistant Architect in the Architectural Department, Durham County Council, preference being given to applicants with professional qualifications and aptitude for design or a high order. Salary £425 per annum, rising by annual increments of £25 to a maximum of £500 per annum, with bonus in addition, which fluctuates with the cost of living—present rate of bonus £99 per annum on a salary of £425. Previous experience and qualifications considered in fixing commencing salary. For particulars of appointment and form of application, apply, enclosing stamped addressed foolscap envelope, to the County Education Architect, 34, Old Elvet, Durham. Last day for receiving applications, 2nd May 1921.

AN ASSOCIATE, age 27, at present employed as an Assistant Architect in the Public Works Department of the Government of India, desires to return home, and seeks employment (in or near London preferably) on a salary not less than £8 (eight) a week. Also willing to perform, before returning home, a tour of inspection for Architects or Building Engineers with interests in the East. Several years' experience in India. Highest references as to character and ability. Can be free on 1st August.—Apply Box 541, the Secretary R.I.B.A., 9 Conduit Street.

A.R.I.B.A. (29), at present in charge of large drawing office in India, desires change to London, owing to climate. Could be free shortly, provided reasonable salary and prospects assured. Previous experience and training in London. Full particulars and references. Apply to Box 421, care of Secretary R.I.B.A., or "Architect," care of Cox & Co., Bombay.



REPORT OF THE COUNCIL FOR THE OFFICIAL YEAR 1920-1921.

SINCE the publication of the last Annual Report the Council have held 18 Meetings.
The following Boards and Committees appointed by the Council have met and reported from time to time on the matters referred to them :—

Annual Conferences in Provinces Committee.	Finance and House Committee.
Annual Dinner Committee.	London Building Acts Committee.
Architects' Welcome Club Committee.	Office of Works Committee.
Board of Architectural Education.	Royal Gold Medal Committee.
Building Industries Consultative Board.	Selection and General Purposes Committee.
Civic Survey Exhibition Joint Committee.	Sessional Papers Committee.
Classes of Membership Committee.	Staff Committee.
Competitions Committee.	Stoppage of Building Committee.
Conditions of Contract Committee.	Town-Planning Committee.
Contributory Housing Scheme Committee.	Unification Committee and Sub-Committee.
Fellowship Drawings Committee.	

Particulars of the work of these Boards and Committees are embodied in this Report.

Obituary. The losses by death have been as follows :—

FELLOWS.		
Aldwinckle : Thomas William	Hardisty : William Cecil.	Moore : Temple Lushington.
Butler : John Dixon.	Hare : Henry Thomas.	Pratt : Hampden William.
Clifton : William Edward.	Mitchell-Withers : John Bought-	Rickards : Edwin Alfred
Corder : Josiah.	more.	Sedding : Edmund Harold.
Cooper : William.		Smith : Joseph.
ASSOCIATES.		
Aldwinckle : Thomas Wilson.	Dods : Robert Smith.	Lacey : Albert Edward.
Blackbourn : Henry.	Johnson : John.	Owen : George Burgoyne.
		Webster : James.
LICENTIATES.		
Burke : Edmund.	Gorman : James.	Richardson : James.
Cameron : Robert Macfarlane	Kirk : Charles James.	Strong : James.
Chambers : Frederick.	Leggett : Melville Charles Marion.	Thomson : James.
Dyer : Cyril Hamilton.	Martin : F. W.	Wall : John Henry.
	Parkin : Robert Arthur	Williams : John Close.
RETIRED FELLOWS.		
Banks : Thomas Lewis.	Kirby : Edmund.	Lynam : Charles.
Hill, Arthur.	Ledingham : James.	Watson : Thomas Lennox.
HONORARY ASSOCIATES.		
Moulton : Lord, P.C., K.C.B., G.B.E., F.R.S.	Richmond : Sir William, K.C.B., R.A.	
HONORARY CORRESPONDING MEMBERS.		
Cuypers : Dr. Pierre Joseph	Lasteyrie : Comte Robert de	Pascal : Jean Louis (Paris).
Hubert (Amsterdam).	(Paris).	

In addition to these losses the Council have to record the death of 1 Associate and 5 Students who fell in the war. Particulars of these are given on a later page of this Report.

Membership. The following table shows the subscribing Membership and Licentiate-ship of the Royal Institute compared with the preceding five years :—

	Fellows.	Associates.	Hon. Associates.	Licentiates.	Total.
1916	852	1,679	52	1,919	4,502
1917	842	1,656	48	1,890	4,436
1918	838	1,631	45	1,882	4,396
1919	834	1,720	46	1,836	4,436
1920	863	1,773	44	1,715	4,395
1921	969	2,032	45	1,537	4,583

During the official year since the last Annual General Meeting 138 Fellows and 320 Associates have been elected, as against 56 Fellows and 168 Associates in the previous year. 105 Licentiates have passed the Examination qualifying for election to the Fellowship and have been duly elected as Fellows.

The Allied Societies. The membership of the Allied Societies, as shown in the last issue of the *KALENDAR*, now reaches a total of 3,254, including Members and Licentiates of the Royal Institute. The membership of the Architectural Association is now 1,489, including Members and Licentiates of the Royal Institute.

The Examinations. During the year 309 candidates for the Probationership have furnished the Council with satisfactory evidence of their attainments and have been registered as Probationers. The Intermediate and Final Examinations have been held once only during the official year—viz., in June 1920. The following table giving the results of the Examinations shows that 28 Students have been added to the Register during the year, and that 5 candidates have passed the Final or Special Examinations qualifying for Associateship :—

	Exempted.	Examined.	Passed.	Relegated.
INTERMEDIATE EXAMINATION	19	13	9	4
FINAL AND SPECIAL EXAMINATION	—	15	5	10

In addition, 108 candidates have passed the Special War Examination, and of these 98 have been elected as Associates, and 25 candidates have been exempted from the Final Examination and have qualified for Associateship.

The Statutory Examination qualifying for District Surveyor in London was not held in the year 1920.

The Council tender their grateful acknowledgments to the Honorary Examiners for their services.

Arbitrators. During the year the President has appointed the following members to act as Arbitrators in connection with building disputes :—

Major Harry Barnes, M.P. [F.]	Sir Banister Fletcher [F.]	Mr. T. Taliesin Rees [F.].
Mr. Alfred W. S. Cross [F.].	Mr. F. H. A. Hardcastle [A.].	Mr. Paul Waterhouse [F.].
Mr. Horace Cubitt [A.].	Mr. George Hubbard [F.].	Mr. Wm. Woodward [F.].

Assessors. Since the issue of the last Annual Report the President has appointed the following Assessors :—

Portsmouth War Memorial—Mr. Paul Waterhouse, F.S.A. [F.].
Blackpool War Memorial—Dr. Percy S. Worthington [F.].
Dundee War Memorial—Sir Robert Lorimer, A.R.A. [F.].

President's Portrait. The portrait of the President is being painted by Sir Arthur S. Cope, R.A. [*Hon. A.*].

Grants. Since the issue of the last Annual Report the Council have made the following grants :—

Architectural Association	£100	British School at Rome	£50
Architects' Benevolent Society	100	British Engineering Standards Association	15
Architectural Association Endowment Fund	125	Conjoint Board of Scientific Societies	20
		Westminster Abbey Restoration Fund	105

Royal Gold Medal. The Royal Gold Medal for Architecture for 1920 was awarded to Monsieur Charles Louis Girault, *Hon. Corresponding Member*. The Medal will be presented to Monsieur Girault on the occasion of the Annual Dinner of the Royal Institute, when he has expressed his intention of attending to receive it in person.

This year the Medal is to be awarded to Sir Edwin L. Lutyens, R.A. [F.], in recognition of the merit of his executed work. His Majesty has graciously signified his approval of the award.

Appointments. During the Session the Council have made the following appointments of members to represent the Royal Institute on the various bodies or for the purposes indicated :—

STANDING COMMITTEE ON WATER REGULATIONS—Messrs. H. D. Searles-Wood [F.] and H. Austen Hall [F].
 INDUSTRIAL COUNCIL FOR THE BUILDING INDUSTRY—Major Harry Barnes, M.P. [F.], Messrs. A. W. S. Cross [F.], James S. Gibson [F.], and George Hubbard [F.].
 COMMITTEE TO FORMULATE A SCHEME FOR UNEMPLOYMENT INSURANCE—Mr. Maurice E. Webb, D.S.O., M.C. [F.]
 DEPUTATION TO MINISTER OF HEALTH ON ARCHITECTS' FEES FOR HOUSING SCHEMES—Mr. John W. Simpson, *President*, Professor S. D. Adshead [F.], Major Harry Barnes, M.P. [F.], Messrs. A. W. S. Cross [F.], Horace Cubitt [A.], James S. Gibson [F.], Arthur Keen [F.], and Herbert A. Welch [A.].
 CONJOINT BOARD OF SCIENTIFIC SOCIETIES—Mr. H. D. Searles-Wood [F.].
 COURT OF THE UNIVERSITY OF LIVERPOOL—Mr. E. Percy Hinde [F.].
 ROYAL COMMISSION ON FIRE LOSSES—Mr. Digby L. Solomon [A.].
 UNIVERSITY OF LONDON ARCHITECTURAL EDUCATION COMMITTEE—Messrs. Arthur Keen [F.] and Paul Waterhouse [F.].
 ROYAL SANITARY INSTITUTE 32ND CONGRESS AND EXHIBITION—Folkestone, June 1921—Mr. H. D. Searles-Wood [F.].
 BUILDING INDUSTRIES CONSULTATIVE BOARD—Mr. Delissa Joseph [F.], in place of the late Mr. H. T. Hare [F.].
 NATIONAL SCHEME OF APPRENTICESHIP IN THE PLUMBING TRADE—Mr. H. D. Searles-Wood [F.].

Sessional Papers. The following papers have been read since the issue of the last Annual Report :—

“The Library and Collections of the Royal Institute of British Architects,” by the Librarian, Mr. Rudolf Dircks (read 15th November).
 “Saracenic Architecture in Egypt and Palestine,” by Mr. Martin S. Briggs [F.] (read 13th December).
 “The Improvement of London,” by Mr. Thos. E. Colclutt, *Royal Gold Medallist, Past President* (read 16th December).
 “Praeneste: A Study for its Restoration,” by Mr. H. Chalton Bradshaw [A.], Croce di Guerra, Rome Scholar (read 17th January 1921).
 “The Cunard Building,” by Mr. W. E. Willink, M.A. Cantab. [F.] (read 14th February).
 “Further Evidence for Dynamic Symmetry in Ancient Architecture,” by Mr. Jay Hambidge (arranged jointly with the Society for the Promotion of Hellenic Studies and read 1st March).
 “Architectural Impressions of a Recent Tour in Mesopotamia,” by Mr. Edward Warren, F.S.A. [F.] (read 2nd March).
 “Cottage Hospitals,” by Mr. H. Percy Adams [F.] (read 14th March).
 “The Land Settlement Building Work of the Ministry of Agriculture and Fisheries,” by Sir Lawrence Weaver, K.B.E. [Hon. A.] (read 4th April).
 “Utility of Research on Building Materials,” by Mr. Alan E. Munby, M.A. Cantab. [F.] (read 18th April).
 “Cinema Designs,” by Mr. Robert Atkinson (to be read on the 23rd May).

The R.I.B.A. Record of Honour and War Memorial. According to the Royal Institute records 79 Fellows, 552 Associates, 339 Licentiates, and 325 Students served with the Forces during the War. Members whose names have not been received are asked to send them to the Secretary. The following is a further list of Members, Licentiates and Students who have fallen :—

ASSOCIATE.			
PIERCE: ARTHUR PATRICK HECTOR	New Zealand Expeditionary Force		Died in October 1918.
STUDENTS.			
COLLINS: SYDNEY T.			Died of wounds.
FOSTER: LEONARD	Lieut., West Yorkshire Regt.		Died of wounds.
JONES: A. D.	Corporal, Royal Engineers		Died in December 1919.
KAY: ALBERT			Killed in action.
STEPHENS: WILLIAM LESLIE	Lieut., Royal Engineers		Killed in action.

A competition was held for the design of the Memorial Tablet, limited to Members, Licentiates, Students and Probationers who had served in the Forces. The President acted as Assessor at the request of the Council. The author of the design placed first is Mr. Trenwith Wills [A.]. The tablet will be placed in the selected position at an early date. Members and others are earnestly requested to send to the Secretary without loss of time the names of any Members, Licentiates, Students and Probationers who fell in the War and whose names have not yet appeared in the lists published in the JOURNAL.

The R.I.B.A. Prizes and Studentships. The Deed of Award of the various Prizes and Studentships was presented to the Royal Institute at the General Meeting on the 17th January 1921. At the Presentation of Prizes on the 31st January an Address to Students was delivered by the President, and a criticism of the work submitted was read by Mr. H. P. Burke Downing [F.]. An Exhibition of the Drawings was held from the 18th January to the 7th February in the Royal Institute Galleries, and was visited by some 700 persons. A selection of the Prize Drawings is now being sent the round of the Allied Societies.

The Henry Jarvis Studentships. The Council offered to the Recognised Schools of Architecture a number of Scholarships of £50 a year each to be awarded to ex-Service Students. The following is a list of the Schools and the Students to whom awards have been made :—

The Architectural Association, London	{ Mr. S. C. Kirby. Mr. F. S. Read. Mr. J. S. Broadbent.
The Cardiff Technical College	{ Mr. E. C. R. Page. Mr. Edwin Williams.
University of Liverpool	{ Mr. J. H. Forshaw. Mr. Cyril Sunderland.
Leeds School of Art	{ Mr. R. A. Cordingley. Mr. C. B. J. Fahy.
Victoria University, Manchester	{ Mr. L. L. T. Slood. Mr. William McCrea.
University of London	
Glasgow School of Architecture	

The Henry Jarvis Scholarship of £50 tenable at the Architectural Association was awarded to Mr. S. G. Bulstrode.

The Henry Jarvis Student-ship tenable at the British School at Rome was not awarded.

Architectural Education. The Report of the Board of Architectural Education contains detailed evidence of the steady development throughout the Empire of the system of training which has been laid down by the Board. The scheme for the award of " Archibald Dawney Studentships," which has been drafted by the Board, will, it is hoped, do much to encourage the study of scientific construction in the Schools. The " Ex-Service Studentships " which are now being awarded in " the Recognised Schools " are an earnest of the Council's desire to do everything in their power to assist those whose architectural training has been to some extent handicapped by their services and sacrifices during the war.

Architects in the Provinces. The steady development of our organisation in the provinces has been a very satisfactory feature of the year's work. The draft charter of the Incorporation of Scottish Architects has received the Council's approval: the South Wales Institute of Architects has energetically pursued its policy of founding local branches in the chief centres of its province: proposals are being discussed for the formation of strong new Allied Societies—one in East Anglia covering the counties of Norfolk, Suffolk and Cambridgeshire, and the other in the counties of Berks, Bucks and Oxfordshire: the Northamptonshire Association of Architects is contemplating an extension of its province to neighbouring counties, and it is hoped that the present Bristol Society of Architects may be strengthened by an agreement with the Gloucestershire Association.

In pursuit of its policy of keeping the closest possible touch with the provinces important steps have been taken during the Session. The President has personally visited the Liverpool, Manchester, Birmingham and South Wales Societies. It has been arranged that meetings of the Presidents of the Allied Societies shall be held three times a year at the Royal Institute; that annual R.I.B.A. Conferences shall be held in important provincial centres: and that each year one of the candidates nominated by the Council for the Vice-Presidency shall be a provincial member. The first of the provincial conferences will be held in Liverpool from Thursday to Saturday, 23rd to 25th June. A Committee, consisting of the Presidents of the Allied Societies on the Council, is arranging the programme and the Liverpool Society of Architects has offered the most generous hospitality and assistance to the Conference.

The Code of Professional Conduct and Practice. In the current issue of the KALENDAR the new Code of Professional Conduct and Practice has been published for the guidance of members and of the public generally. It has already proved its usefulness in several cases that have arisen.

Competitions. During the past year the Competitions Committee has had an exceptionally heavy burden of work thrown upon it by the promotion of a large number of Competitions, chiefly for the design of War Memorials, in which those responsible have often ignored the R.I.B.A. Regulations. The Council desire to acknowledge their indebtedness to the members of the Committee, and in particular to its Hon. Secretary, Mr. Herbert A. Welch, for their arduous and successful efforts in dealing with these Competitions.

The Conditions of Contract. The action of the National Federation of Building Trades' Employers in repudiating the "agreed Form of Contract" and issuing, without consultation with the Royal Institute, the so-called "National Building Code," has been the cause of certain difficulties during the course of the year. The Royal Institute has now invited the Surveyors' Institution, the National Federation of Building Trades' Employers, and the Society of Architects to a conference on the general question of conditions of contract. It is hoped that a frank discussion of this difficult subject will result in an equitable solution being found.

Architecture and the General Public. The Council desire to call the special attention of members to the very interesting programme of public lectures which has been arranged by the Literature Standing Committee. These lectures are open to the general public and members can contribute greatly to the success of the series by inviting their personal friends to attend them.

The National Housing Scheme. The Council have watched with anxiety the slow and difficult progress of the National Housing Scheme. They felt from the outset, and they have more than once clearly stated their opinion, that unless the resources of professional knowledge and business ability were given the fullest scope in the planning and administration of the scheme it would fall far short of the success anticipated by the Minister of Health. The result of two years' experience has only confirmed them in their opinion.

The Scale of Fees for Housing Work. During the whole of the Session negotiations have been carried on with the Ministry of Health in connection with the Scale of Fees for Housing Work. The Council regret that the Ministry have so far failed to realise the importance of settling this matter promptly on equitable terms.

Major Barnes, M.P. The Council again desire to call the attention of members to the valuable services which have been rendered both to the Royal Institute and to the profession generally by their colleague, Major Harry Barnes, M.P. His parliamentary duties have made it impossible for him to make frequent attendances at Council and Committee meetings, but his presence in the House of Commons has been invaluable to the profession.

The Architects' and Surveyors' Assistants' Professional Union. The Council have received from the Assistants' Welfare Committee a number of proposals which have been formulated in the interests of assistants. They have not up to the present seen their way to adopt the scale of minimum salaries suggested, but they are giving sympathetic attention to the other proposals submitted to them.

The Annual Dinner. After an interval of seven years the series of Annual Dinners has been resumed, and the 1921 dinner will take place on Wednesday, May 11th, at the Princes' Restaurant. It is hoped that there will be a large and representative gathering of members at the dinner to do honour to our guests.

Peace Day Garden Party. The Garden Party in the Zoological Gardens was so complete a success last year that it has been decided to arrange a similar function on June 28th, of which particulars will be sent out in the near future.

Unification and Registration. The representative Committee which has been considering the question of the Unification and Registration of the profession has been at work during the whole of the past session. A draft Report has been unanimously adopted by the Sub-Committee, and, after consideration by the Councils of the constituent bodies, it will be submitted to a meeting of the main Committee on 12th May.

Annual Exhibition of Architecture. It has been decided to organise an Annual Exhibition of Contemporary Architecture which will be held in the Royal Institute Galleries. A joint Committee, representing the Art, Literature, Practice, and Science Committees, and the Council, has been charged with the duty of making the necessary arrangements. The first of these Exhibitions will be held in the coming winter, and detailed information will be published at an early date.

The Improvement of Street Architecture. In the Report of the Art Standing Committee members will find particulars of the scheme for the improvement of Street Architecture which has been adopted during the current session. It is hoped that we shall secure the co-operation of the London County Council and of the Corporation of the City of London in carrying out this scheme, which should in course of time exercise a stimulating influence on the public interest in architecture.

The Building Industries Consultative Board. An interim Report on the work of this Board since its foundation is published in the present issue of the JOURNAL for the information of members.

REPORT OF THE BOARD OF ARCHITECTURAL EDUCATION.

The Board have held 9 meetings since the issue of the last Report. Mr. Paul Waterhouse has acted as Chairman, Mr. Walter Cave and Mr. Maurice E. Webb as Vice-Chairmen, and Mr. W. G. Newton as Hon. Secretary.

Committees.—The following Committees of the Board have been appointed :—Committee of Teachers, Examinations Committee, Testimonies of Study Committee, Exemptions Committee, Examinations in India Committee, and Herbert Baker Scholarship Committee.

Problems in Design.—155 Problems have been received and 108 approved.

Constitution of the Board.—The Report on the future Constitution of the Board has been approved in principle by the Council, but no action can be taken until new By-laws are drafted.

Heads of "Recognised" Schools.—The Board have urged that Heads of "Recognised" Schools shall be Practising Architects, and the Council have been in communication with the Schools on this point.

Cardiff.—The Technical College, Cardiff, has been added to the list of Schools recognised for exemption from the Intermediate Examination.

Overseas Examinations.—Arrangements are in progress by which all the Allied Societies Overseas will conduct the Intermediate and Final Examinations.

*Exemption from Final Examination.**—Exemption from the Final Examination has been granted to the Schools which conduct a five years' Diploma or Degree Course. The Architectural Association, London, and Liverpool University have now been "recognised" for such exemption.

Payment of Examiners.—A revision of the scheme for the Payment of Examiners is under consideration.

Presentation of Address to Mr. Lewis Solomon.—Mr. Waterhouse, on behalf of the Board, presented a framed Testimonial to Mr. Lewis Solomon, embodying the appreciation of the Board for the services rendered by Mr. Solomon for many years past.

Examinations in India.—The question of Architectural Education and Examination in India is being considered by the Board.

Proposed School of Architecture, Cairo.—With the approval of H.H. the Sultan, suggestions have been made for the foundation of a School of Architecture, Cairo, and the Board have the matter under consideration.

Prizes and Studentships.—The Board appointed Sub-Committees to judge the various designs and drawings submitted for the Institute and other Prizes, and reported thereon to the Council.

The Examinations.—The Board have conducted the Intermediate, Final and Special Examinations and the results as reported to the Council have been published.

Special War Examination and Special War Exemption.—The Special War Examination has been held twice in London and once in Toronto ; 125 candidates presented themselves, of whom 108 passed. Of the Students who have availed themselves of the Special War Exemption from the Final Examination, 177 have been elected Associates.

* With the exception of the Examination in Professional Practice, and provided that in judging all designs submitted for the Diploma or Degree there be two External Examiners, approved by the Council, with power of veto.

REPORT OF THE ART STANDING COMMITTEE.

Six meetings of the Art Standing Committee have been held since the issue of the last Annual Report. The following officers were elected to serve during the Session :—Chairman, Mr. Walter Cave ; Vice-Chairman, Mr. Walter Tapper ; Hon. Secretaries, Mr. W. A. Forsyth and Mr. Maurice E. Webb.

The following subjects have been under discussion :—

Clifford's Inn.—The Committee's attention having been drawn to the fact that Clifford's Inn was up for sale, a letter was addressed to the Society for the Protection of Ancient Buildings, offering co-operation in any action that the Society might see their way to take in order to preserve these interesting old buildings.

Annual Exhibition in Architecture.—At the request of the President, the Committee have given careful consideration to the proposal to hold an Annual Exhibition in Architecture during the winter months and have prepared a preliminary scheme and an estimate of cost for the consideration of the Council.

Visits to Buildings of Interest.—The Committee decided to organise a series of visits to buildings of interest in London and the neighbourhood. The first of these was held on the 5th of March, when, by the kind permission of H.M. Office of Works, a party of 38 members visited Westminster Hall to view the work of repair to the roof which is now in progress. Preceding the inspection, Sir Frank Baines gave a very interesting lecture on the history of the roof and the methods that are being adopted to preserve as far as possible its original character and to arrest extensive decay. The Committee have now under consideration visits to the London County Hall, St. George's Chapel, Windsor, the Port of London Authority New Offices, and a further announcement will be made in the JOURNAL in due course.

Nicholas Hawkmoor's Tomb in Shenley Churchyard.—The Committee have had their attention drawn to the state of disrepair into which this tomb has fallen. The tomb has been inspected, and the Council have been recommended to carry out certain urgent repairs and to place in the church a fitting record of the life and work of this distinguished architect.

Medal for Best Street Frontage.—At the request of the Council the Committee are getting into touch with the London County Council and the City Corporation with a view to the sympathetic co-operation of these bodies in a scheme for encouraging excellence of design in Street Architecture by the award of an Annual Bronze Medal for the best Street Frontage.

Sessional Papers.—Suggestions for Sessional Papers have been forwarded to the Sessional Papers Committee.

REPORT OF THE LITERATURE STANDING COMMITTEE.

Eight meetings of the Committee have been held since the issue of the last report. The following officers were elected to serve during the session : Mr. Henry M. Fletcher, Chairman ; Mr. C. Harrison Townsend, Vice-Chairman ; Mr. Louis Ambler and Mr. J. Alan Slater, Hon. Secretaries.

In the early part of the Session, in order to arouse a more general interest in architecture on the part of the public, the Committee were accorded permission by the Council to arrange a series of lectures, both of a popular and technical character. The Committee were successful in arranging a series of six lectures to be given in the large gallery of the Institute during April, May and June by the following gentlemen :

Thursday, April 28th	..	Mr. A. Clutton Brock.	Chairman : Mr. John W. Simpson, President.
.. May 5th	..	Mr. F. C. Eden, M.A.	Chairman : Sir Aston Webb, P.R.A.
.. May 19th	..	Mr. Roger Fry.	Chairman :
.. May 26th	..	Sir Charles Nicholson, Bart., M.A.	Chairman :
.. June 2nd	..	Mr. Henry M. Fletcher, M.A.	Chairman : Mr. Ernest Newton, C.B.E., R.A.
.. June 9th	..	Mr. Goodhart Rendel.	Chairman :

The arrangements for the Technical Lectures were not completed by the end of the Session, but it is hoped that they may be given during the autumn.

The Committee having realised for some years that the present accommodation for books and drawings was becoming wholly inadequate for the purposes of the Library, appointed a Sub-Committee to report upon the matter. The Committee devoted a great deal of time to the consideration of making use of the further space available in the present rooms of the Library, but arrived at the conclusion that any such readjustment would only be piecemeal and would not provide for the full requirements of the Library or for its natural growth. It was, therefore, decided to recommend that the Library should be transferred to the galleries on the ground floor, and structural alterations made in the present Library in order to adapt it for the purposes of a meeting room. The recommendations were forwarded to the Council and are at present under consideration.

The Committee also made recommendations with regard to protection from fire, which the Council adopted.

The Committee, at the request of the Council, have also made recommendations with regard to alterations in the Library Rules, and the wording of the Travelling Students' Card.

Suggestions as to readers of papers for next Session were also submitted to the Council.

The Committee considered that it would be useful to members of the Institute if the plates published in the professional journals were classified according to subject and preserved in separate portfolios. This arrangement has been in operation since the beginning of the year.

At the suggestion of the President the question of the practicability of making loans of duplicate copies of books to the Allied Societies was considered. In view, however, of the small number of duplicate copies available and the large number of books which would be required for distribution the Committee regret that they were unable to make any useful recommendation in the matter at the present time.

The Committee are indebted to Sir Lawrence Weaver for the presentation of the very rare 1567 edition of Philibert de L'Orme's *Le Premier Tome de L'Architecture* and to Mr. F. R. Hiorns for the 1568 Edition of Jean Bullant's *Reygles generale d'architecture des cinq manieres de colonnes*, and J. Gilbert's *Fragments towards the history of Stained glass and the sister arts of the Middle Ages*, containing Wm. Burges's autograph. And to Mr. C. H. Lohr for a copy of Desgodetz's *Les Edifices Antiques de Rome*, which formerly was in the Library of Mr. Francis Crammer Penrose. Mr. T. E. Collcutt presented Houvet's *Sculptures of Chartres Cathedral*, in six volumes, an interesting gift, which is reviewed by Professor Derwent Wood, R.A. in the Institute JOURNAL.

Amongst the presentations of drawings and photographs the Committee would like to mention four water-colour drawings by Augustus Charles Pugin, and seven drawings by the late Mr. J. D. Crace, presented by Mrs. Crace: eight drawings attributed to Bernasconi presented by Mr. Reginald St. A. Roumieu; fourteen photographs of old prints of Westminster Abbey presented by Mr. Hurst Seager; and a drawing of Warwick College, 1435, since demolished, presented by Mr. F. Holyoake Moore.

On the recommendation of the Committee the Council have purchased a portrait in oils of Augustus Charles Pugin painted by James Green, R.A.

The Committee have to report with great regret the resignation through ill-health of Mr. W. Grant Keith, the Assistant Librarian. To fill the position caused by Mr. Keith's retirement the Council appointed Mr. W. P. Steel, a Student of the Institute who has had previous experience of work in the Institute Library.

The following is the Librarian's Report to the Committee:

During the twelve months ending 31st March of the present year 141 volumes and 51 pamphlets have been added to the Library, exclusive of periodicals, reports and transactions of Societies, and parts of works issued in serial form.

The number of works presented was 19 volumes and 33 pamphlets.

Works purchased numbered 122 volumes and 18 pamphlets, of which 37 volumes were added to the Loan Library.

The attendance of readers in the Reference Library numbered 7,063.

The number of books issued on loan was 2,690.

The number of tickets issued for admission to the Library, other than to members of the Institute or to Students and Probationers, was 152.

The number of books issued through the post was 221.

Among the books presented or purchased during the year may be mentioned: Bennett and others *The Art of E. A. Rickards*, Baum's *Baukunst und Dekorative Plastik du Fruhrenaissance in Italien*, Bell's *The Great Fire of London*, Bilson's *St. Mary's Church, Beverley*, Blomfield's *The Tangled Skein; Art in England 1800-1920*, Bolton's *Sir John Soane Museum*, Bullock's *Westminster Abbey and St. Margaret's Church*, Biagi's *La Renaissance en Italie*, Burlington Fine Arts Club *Catalogue of Early Pictures and Drawings of London, with some Contemporary Furniture*; Contet and Vacquier's *Les vieux hotels de Paris. 11th and 12th Series*; Cole's *Perspective*, Dimier's *Hellenistic Sculpture*, Gromort's *Choix d'éléments d'Architecture Classique*, Gusman's *L'Art décoratif de Rome*, Vol. 3; Guérinet's *L'Architecture aux Salons*, Guilmar's *Maitres Ornamistes*, Havell's *Handbook of Indian Art*, Howard and Crossley's *Church Woodwork*, Hodges and Gibson's *Hexham and its Abbey*, Jéquier's *Les temples Memphites et Thebains*, Licht's *Architektur der XX Jahrhunderts*, Le Conteur's *Ancient Glass in Winchester*, Martin's *L'Art Gothique en France*, Martin's *L'Art Roman en France*, Mebes' *Um 1800 Architektur und Handwerk*, Pricke's *Practical Perspective, 1692*; Polley's *Spanish Architecture and Ornament*, Stratton's *English Interiors*, Stanford White's *Sketches and Designs*, Vallance's *Old Crosses and Lychgates*, Stevens' *Hospitals*, Stobart's *The Grandeur that was Rome*, Ferrari's *La Tomba nell 'Arte Italiana*, Canevali's *Valle Canonica*, St. John Hope's *Cowdray and Easebourne Priory*, and Ricci's *Bibienna*.

REPORT OF THE PRACTICE STANDING COMMITTEE.

The Committee have held 15 meetings since the publication of the last Annual Report; the average attendance of members per meeting has been 11. The officers of the Committee are:—Chairman, Mr. Alfred W. S. Cross; Vice-Chairman, Mr. John Slater; Hon. Secretaries, Mr. Horace Cubitt and Mr. K. Gammell.

The wide influence of the Institute is exemplified in the fact that, among the enquiries as to professional practice recently dealt with by the Committee, one came from China and another from East Africa.

Sub-Committees.—During the latter part of the Session, in order to cope with the greatly increased amount of work, it was found necessary to form two Sub-Committees:—(1) a "Housing" Sub-Committee, of which Mr. Sydney Perks is Chairman and Mr. K. Gammell Hon. Secretary, and (2) a "Charges and Contracts" Sub-Committee, of which Mr. W. Henry White is Chairman and Mr. W. Gillbee Scott Hon. Secretary.

Matters Relating to Housing.—A very large proportion of the time of the Committee has been occupied in dealing with questions from members as to housing work, and the fees payable for the same. The Committee regret that, in several cases that were brought to their notice, it was evident that local authorities were trying to make arrangements with architects on a basis of fees less than the scale agreed between the Institute and the Ministry of Health. The Committee consider that in any such case the architect concerned should not accept less satisfactory terms of remuneration without first communicating with the Institute and obtaining its decision. This has been done by several architects during the past twelve months. One case in which there has been a very serious undercutting of the housing scale, in response to a newspaper advertisement by a local authority, has been reported to the Council recommending action under the By-law dealing with professional conduct.

As a result of several complaints by members, the Committee have recommended the Council to endeavour to obtain an increase in the scale of fees payable for road and sewer work, but no success in this direction has yet been achieved. The Committee, however, are gratified to note that their action last year in drawing the attention of the Council to the inadequacy of the scale for housing work on scattered sites in rural districts has resulted in a special increase in the scale in respect of work thus situated.

The Committee have recommended that public attention shall be drawn to the work of architects in regard to housing by the inclusion of a "Housing" paper as one of the Sessional papers for the ensuing Session.

Office of Works and Housing.—The Committee have had cases before them where the position of architects has appeared to be adversely affected by the action of the Office of Works, and these cases have been brought to the notice of the Council with a view to investigation.

R.I.B.A. Certificate Book.—The Committee have been instructed by the Council to prepare a Certi-

ificate Book to be issued by the Institute for use by architects. The question of the form of certificate to be adopted has been carefully considered by a Sub-Committee appointed for this purpose, and it is anticipated that the book will shortly be ready for publication.

Copyright of Plans.—The Committee have dealt with several complaints from architects as to infringement of copyright, and, in one of these cases, which appeared to be of a typical nature, the Committee obtained counsel's opinion, which was published for the general information of members in the JOURNAL dated the 19th March 1920.

Form of Appointment of Arbitrator.—On the suggestion of the President, the Committee have considered the form in use by the President for the time being of the R.I.B.A. in connection with the appointment of an arbitrator. The Committee have recommended that where solicitors are engaged the form used shall be so worded as to involve an undertaking on their part to take up the arbitrator's award and pay his fees, in the event of the default of the parties to the arbitration.

Fees for a War Memorial.—Among the cases that the Committee have considered is one in which an architect had designed a small war memorial costing less than £100, and his clients contended that, in accordance with the Institute's Scale of Charges, his fee for the work should be calculated on a percentage basis. The Committee were able to point to Clause 3 of the Scale as being specially applicable to work of this nature.

R.I.B.A. Annual Exhibition of Architecture.—The Committee have recommended the Council that, with a view to the proposed Annual Exhibition being fully representative of architecture in all its aspects, the four Standing Committees of the Institute should be equally represented on the Committee responsible for the organisation of the Exhibition.

Professional Conduct.—The Committee have considered several cases in which complaints as to professional conduct have been made by one architect against another. When an architect complained of is a Member or Licentiate of the Institute, the Committee investigate the circumstances, and, if necessary, recommend the Council as to the action to be taken, but in no case do they act on *ex parte* statements.

Architects' Charges.—The Committee have been instrumental through their Chairman in upholding the Institute Scale of Charges before the War Losses Commission. The particulars of this case, together with the decision of the Commission, were published for the information of members in the JOURNAL for 22nd January 1921.

Conditions of Appointment of Architects.—In several of the cases on which the Committee's advice has been asked it has been found that the position of the architect has been prejudiced owing to the questionable legality of the original appointment. Members appointed as architects by public authorities, or other corporate bodies, should insist on the appointment being made under seal. Also if members desire to make sure that they will be paid in accordance with the Scale of Charges they should see that the Scale is incorporated in the contract of engagement that they make with their employer, whether corporate body or private client. The Committee feel very strongly that a large proportion of members are not as businesslike as they should be, in their own interests, in regard to these matters.

REPORT OF THE SCIENCE STANDING COMMITTEE.

Since the date of the last Annual Report of the Science Standing Committee the number of meetings held has been 10 (including April). The average attendance at each meeting was 7.75. The officers were elected as follows :—Alan E. Munby, M.A., Chairman ; H. D. Searles-Wood, Vice-Chairman ; J. Ernest Franck and Henry A. Saul, Hon. Secretaries.

Conjoint Board of Scientific Societies.—The Committee have had under consideration a letter from Professor W. W. Watts, dated the 6th April 1920, of the Conjoint Board of Scientific Societies, Burlington House. This letter pointed out the necessity for the establishment of continuous research, the closer co-operation between the Services and all scientific Institutions throughout the country, and

facilities for the mobilisation of a scientific staff in the most efficient manner. The Committee suggested to the Council that the object Professor W. W. Watts desires to attain will be best achieved by arousing a national interest in science as a fundamental part of a general education and as applied to the needs of industry. At the same time it is realised that war involves special problems which should be studied by scientific experts acting in concert.

Research Work.—It will have been noticed that the Research Committee, which was a Committee of Council, no longer appears in the KALENDAR. The Council considered the Research Committee unnecessary and that the Science Committee could do its work, but amongst the former Committee's activities Research on the Atmospheric Corrosion of Non-ferrous Metals has developed, and with the assistance of the Institute of Metals and the Industrial Research Department, aided by subscriptions from a number of important trade associations, a whole-time trained scientist has now been appointed and is beginning experimental work on this subject in London. The annual outlay provided for is some £800 a year. The Institute members of the Committee controlling this research include its chairman, and it is the intention to prosecute investigations into the tarnishing of builder's iron-mongery and other metal fittings on the lines of the valuable work already done on marine corrosion of condenser tubes. This work will take some years, but interim reports will, it is hoped, be published.

The Research Committee likewise made investigations into the manufacture of glass suitable for pavement lights. Specimens made three years ago in this country have been tested for such period in London and by the side of the material usually employed for this purpose. The results of the trial show that the glass formerly used for this purpose appears to be more successful than the specimens made for the tests.

Cambridge School.—During the Session the Committee have been in touch with the Architectural School at Cambridge, and several interviews have taken place between our officials and those responsible for the courses at the University, where in the Engineering School considerable facilities exist for tests on materials. Mr. Moullin, under Professor Prior, has invited the Committee to suggest problems of practical interest for experimental work.

Owing to the post-war congestion at Cambridge, it has been necessary to make a very modest beginning, but details of a few simple yet valuable problems of research have been arranged, and experimental work is to begin as soon as possible.

Building Stone Tests.—In 1911 the Science Committee arranged, in conjunction with H.M. Geological Survey, certain exposure tests on a number of common building stones. Samples were prepared and have been now for some ten years exposed to the London atmosphere, and inspection has taken place from time to time. The Committee have made a further inspection this Session, and a report is now in preparation on the whole matter. Data, including an excellent series of photographs showing the condition of the stones at the beginning and end of the period, and also of magnified portions of the stone faces, are in the Committee's hands, together with tests on specific gravity, porosity, freezing, analysis and staining. It is not possible to include in this report conclusions from these data, pending further deliberations with the Survey authorities, but it is hoped that a full account may appear later in the JOURNAL. The whole of the expense and supervision of this valuable work has been undertaken by the Geological Survey, and the Committee wishes to take this opportunity of making acknowledgment to H.M. Geological Survey, and to Mr. J. Allen Howe in particular. The series of photographs and the report will eventually be presented to the Institute Library, as an addition to an earlier illustrated monograph on Building Stones produced by the Science Committee some years ago.

Fuel Economy and Smoke Abatement.—The Committee have had under consideration the Report on Coal Fire prepared by Dr. Margaret W. Fishenden, D.Sc., for the Manchester Corporation Air Pollution Advisory Board. The Committee have likewise had the valuable assistance of a personal interview with Dr. Margaret W. Fishenden, and have discussed with her the general terms of her Report on the

Coal Fire. The Committee can only briefly refer to the points which are chiefly interesting to our members, all of which points are useful to remember in the design of the room and the house. These points are as follows :—

1. Flues to be built on inner walls.
2. Inner walls enclosing flues to be constructed of as good a conducting material as practicable, consistent with safety.
3. Outer walls to be made as effectively insulating as possible.
4. All flues to be provided with means of draught regulation, including means of adjusting the amounts of air which enter the fire from below.
5. Screens to be made use of in cases of excessive draught.
6. Fires to be recessed as little as possible.

Those members who wish to deal with this matter in greater detail can do so by a perusal of the report published by H.M. Stationery Office.

The Committee likewise have had under consideration the Interim Report of the Ministry of Health Departmental Committee on Smoke and Noxious Vapours Abatement. Some of the conclusions arrived at in the Report are as follows :—

That means which produce little or no smoke are available and practicable for cooking, heating water, and warming rooms.

Almost without exception the witnesses have condemned either explicitly or implicitly the old-fashioned kitchen range and back-boiler as inefficient, wasteful of fuel and labour, and productive of smoke.

That with regard to the question of domestic heating in general there is an absence of full and scientific knowledge.

The Ministry of Health and Local Authorities, with the aid of the necessary experts, should carefully investigate the relative merits of particular systems in varying circumstances.

That the Government should encourage the co-ordination and extension of research into domestic heating generally.

The Science Committee point out that the Report foreshadows proposals for legislation on this subject, more particularly in respect of two aspects :—

1. The health of those living in towns ; there is no doubt from the medical evidence that the clearer and cleaner the atmosphere the better the health of a community.
2. The great waste which takes place in the destruction of all classes of building from the attacks of various deleterious substances conveyed in a smoke-laden atmosphere.

On the second point the Committee are desirous of collecting evidence so as to be able to show some relative costs in the upkeep of buildings from this cause, and it is hoped that any particulars which are at the disposal of our members will be forwarded to the Committee.

Tile Testing.—The Committee have now made arrangements for the preparation of microscopic sections of tiles, and hopes that, from observations on these specimens, they may be able to indicate the general causes for certain defects in tiling.

Disease in Timber.—Since the last Report and the appeal therein the Committee have received several specimens of diseased timber, all showing special characteristics in their decay. These specimens are now under investigation at South Kensington by Dr. Gahan, who has already rendered considerable help to the Committee, for which we wish to express our thanks. The Committee are likewise in communication with Dr. Chandler, Secretary of the Advisory Committee on Timbers of the Imperial Institute, and wish to acknowledge the valuable help already received in reference to New Zealand timbers. A great deal of information has been obtained and is in course of preparation for submission to the members of the Institute ; it is hoped that assistance may be given to the members in the many practical problems which arise during the course of repairs to buildings, more particularly

in cases of decay caused by "dry-rot" and wood-boring insects. As an illustration, it may be mentioned that the use of a valuable preparation for killing dry-rot has been investigated as regards its effect upon plaster to meet the case of treatment of timber forming the constructional backing of decorative ceilings. The plaster was found to be materially affected, and this problem will be referred to the Architectural School at Cambridge for further investigation.

The Committee have had the benefit of a full report from Sir Frank Baines on the method finally adopted for destroying beetle (worm) in Westminster Hall roof. The preparation used is being tried on a fairly extensive scale in a country seat in the Midlands by a member of the Committee, who will furnish a report at a later date.

The Committee would particularly draw the attention of members of the Institute to the request for further cases of disease in timber, and likewise for specimens of timber actually in course of decay.

Imperial Forestry Conference.—Members of the Science Standing Committee attended the opening meeting of this Conference at the Guildhall, when the delegates submitted their reports on the forestry of those parts of the Empire which they represented. This meeting was addressed by the Lord Mayor, Viscount Milner, Secretary of State for the Colonies, and Lord Lovat, Chairman of the Forestry Commission, and the delegates of those parts of the Empire which they represented. None of the other meetings of the Conference were open to the representatives of the Institute. The report of the meetings of the Conference is now published by H.M. Stationery Office.

Empire Timber Exhibition.—The Exhibition was of great interest, and it has been arranged by the Board of Trade to form a small permanent exhibition of some specimens of wood. The Catalogue of British Empire Timber contains a large amount of information which is of the utmost service to architects, and members would do well to have a copy at hand for reference. The price of the catalogue is 2s., and copies can be obtained from the Department of Overseas Trade (Development and Intelligence), 35, Old Queen Street, S.W.1.

Chemical Society.—Since the last Report the Committee have approached the Chemical Society on the subject of substitutes for some of the expensive materials commonly used in the construction of laboratory and hospital fixtures, such as chemical benches, and also on the question of standardizing some of these fittings and preparing definite specifications for drainage materials for this special work. These matters came before the Council of the Chemical Society, as the result of which a Conference was convened at Burlington House representing this Society, the Board of Education, the Industrial Research Department and the Royal Institute of British Architects, when a Committee was appointed to investigate and report. This Committee has visited a number of institutions and collected some information, and hopes to report shortly upon action and experimental work desirable, when another Conference will be called.

REPORT OF THE TOWN PLANNING AND HOUSING COMMITTEE.

Sir Aston Webb, P.R.A., was again elected Chairman of the Committee and Mr. Walter Cave [*F.*] Vice-Chairman, the Honorary Secretaries being Mr. W. R. Davidge [*A.*] and Mr. C. H. B. Quennell [*F.*], the latter acting during Mr. Davidge's recent temporary absence in India. In view of the fact that under the provisions of the Housing, Town Planning, etc., Act, 1919, the preparation of a town planning scheme is made compulsory after January 1923 for all towns with a population of more than 20,000, the Institute Council have, on the recommendation of the Committee, issued a circular letter to all Allied Societies in Great Britain, suggesting the appointment of a Special Committee for each area to keep in touch with the Institute and the local authorities, with a view to the appointment of a competent architect in each case.

The Ministry of Health have now issued amended town planning regulations, which are being considered by the Committee and any necessary representations will be made to the Ministry as need arises.

The Committee are pleased to report that the Ministry of Transport have already taken action

with regard to the construction of arterial roads in the neighbourhood of London, and the London County Council are also in accord with the proposals.

The possibility of utilising unemployed labour in the construction of these arterial roads has been considered by the Ministry of Transport and the London County Council, and the latter have decided to proceed with the Eltham By-pass Road, the work being now in hand. A portion of the Western Avenue is also to be constructed by the Hammersmith Borough Council in connection with their housing scheme.

On the recommendation of the Committee, the Institute Council have addressed a letter to Sir Henry Maybury, of the Ministry of Transport, expressing gratification at the action already taken *re* arterial roads and suggesting that regard should be had in every case to the additional roads suggested on the development plan of the London Society, and also drawing attention to the Thames-side Development proposals and the desirability of a new arterial road along the Essex side of the river, at least as far as Tilbury.

The Committee are continuing to watch the various proposals brought forward by Government and municipal authorities with a view to such action as the Council of the Institute may think necessary.

REPORT OF THE CIVIC SURVEY JOINT COMMITTEE.

The Civic Survey Joint Committee have had under consideration the disposal of the diagrams which were prepared during the War in the areas of South Lancashire, Yorkshire and Greater London. The Committee have decided, after consultation with the Honorary Directors of the Surveys, to offer the Lancashire diagrams to the Regional Survey Committee at Manchester, and the Yorkshire diagrams to the Leeds Corporation. With regard to the diagrams of Greater London it is proposed to offer the collection to the London County Council, subject to the condition that they are available for inspection by local authorities and members of the public to whom they may be of service. The Committee hope that the London County Council will carry on the work. There has been a continually growing appreciation of the use of the diagrams in connection with questions of municipal administration, as well as town development. Meanwhile, the Committee are glad to know that the Sociological Society hope to formulate a scheme by which certain aspects of the work may be continued.

REPORT OF THE COMPETITIONS COMMITTEE.

Since the publication of the last Annual Report the Committee has met on 12 occasions. The attendance of members of the Committee during the Session has been as follows :—

Prof. Patrick Abercrombie	0	Mr. H. V. Lanchester (absent in India)	1
Mr. H. V. Ashley	9	.. T. Winton Newman	5
.. T. Edwin Cooper	0	.. Barclay Niven	2
.. A. W. S. Cross	4	.. W. A. Pite	5
.. H. S. East	4	.. T. Taliesin Rees	1
.. H. M. Fletcher	3	.. J. Douglas Scott	8
.. H. T. Hare (deceased)	0	.. Septimus Warwick	1
.. E. Vincent Harris	0	.. Herbert A. Welch	12
.. Arthur Keen	2	.. W. G. Wilson	12

Mr. Warwick was elected a member in December, 1920.

The Officers of the Committee are as follows :—Chairman, Mr. H. V. Lanchester [*F.*]; Vice-Chairman, Mr. W. G. Wilson [*F.*]; Hon. Secretary, Herbert A. Welch [*A.*].

The Committee regrets the decease of our ex-President, Mr. H. T. Hare, who has done excellent work for the Competitions Committee, of which he was a member for many years.

The Committee regrets also the unavoidable absence in India during part of the year of the Chairman, Mr. H. V. Lanchester, whose invaluable assistance was much missed.

Sub-Committees.—Three Sub-Committees have been appointed by the Committee to report upon various matters and the Committee tenders its thanks to the members who have acted on these Sub-Committees for their helpful work.

During the Session the Committee has dealt with 43 competitions. In six cases the conditions were considered to be satisfactory, in six cases the conditions were revised to the satisfaction of the Committee, and in 13 cases the Committee received the conditions at too late a date to take useful action. In 12 cases the Council have banned the competitions on the recommendation of the Committee. In four cases the Committee's advice was sought by the promoters before the issue of conditions. There are two competitions at present under consideration.

International Competitions.—The Committee has had under consideration during the Session two International Competitions in which the conditions were at variance with the approved regulations governing such competitions. No good result, however, accrued from the exertions of the Committee, owing to the disregard by Continental architects and organisations of the agreed conditions.

The Committee is gratified to report that there is a growing tendency on the part of promoters to send draft conditions for competitions to the R.I.B.A. for approval, or to ask its advice as to procedure before entering upon the appointment of Assessor and the drawing up of the conditions.

The Committee, however, desires to point out that conditions for competitions are frequently received for consideration by the Committee at so late a date as to leave inadequate time to negotiate with the promoters with a view to the conditions being brought into accord with our regulations. It would be of great assistance to the effective work of the Committee if the Council of the R.I.B.A. would indicate to the members and Licentiates the importance of forwarding *at once* a copy of all conditions for competitions which are being promoted.

It is suggested that this might effectively be done by means of a letter from the Institute to the whole of the Allied Societies calling their attention in very clear terms to the existing difficulty.

Ottawa Government Building Competition.—The Committee considered a complaint from one of the competitors whose design had been "placed" stating that in common with the authors of the other "placed" designs he had received very discourteous and unfair treatment at the hands of the promoters. After investigation the Committee reported to the Council the result of their findings and the Council briefed counsel to appear in the case on behalf of the authors of the "placed designs" in an action to come before the Canadian Courts of Justice.

Hendon U.D.C. Baths Competition.—The Committee has had under consideration the complaint of a Licentiate (whose design was placed first in this competition) in which he stated that he had been unjustly treated by the promoters of this competition. The Committee gave full consideration to the case and made recommendations to the Council. The Council voted a sum of 100 guineas towards the costs of the action in the event of the Licentiate deciding to take the matter into the Courts.

Premiums for Public Competitions.—The Committee has considered (in conjunction with the Practice Committee) a revision and increase of the scale for this work, and made its recommendations to the Council. This matter is still under consideration.

Conditions for Housing Competitions.—The Committee has drawn up special conditions to govern competitions for this class of work. The Council has given its approval thereto, and has published the conditions in the Press.

Conduct of Public Competitions.—The Committee has drawn up a statement on the above. The Council has approved the statement and has published it in the Professional Press and copies were sent to all the Allied Societies. At the request of the editor of the *British Builder* a statement was prepared by the Committee in conjunction with the Society of Architects and issued in the above journal. Copies of the issue were circulated to all Public Bodies.

Control of Competitions.—Suggestions from the Institute of Scottish Architects and from the Secretary R.I.B.A. have been received and considered by the Committee, who arrived at the conclusion that the suggestions were not at present practicable. The Committee has, however, under consideration a proposal from the Society of Architects to the effect that a Joint Committee on Competitions be set up representative of the R.I.B.A., the Society of Architects and all the Allied Societies, with a view to taking united action in all competitions.

REPORT OF THE BUILDING INDUSTRIES CONSULTATIVE BOARD.

The formation of the Board was the outcome of a meeting held at the Royal Institute of British Architects to consider the condition of the building industry on 20th May 1919. On the invitation of the Council, the following bodies consented to appoint representatives to serve on the Board :—

The R.I.B.A.	The Surveyors' Institution.
The Institute of Builders and the National Federation of Building Trades' Employers.	
National Federation of Building Trades' Operatives.	

And on the 27th May 1919 the Board was constituted, with the following membership :—

Appointed by the R.I.B.A. : Mr. John W. Simpson (Chairman); Mr. Ernest Newton, R.A.; Mr. Henry T. Hare (since deceased); Major Harry Barnes, M.P.
 Appointed by the Society of Architects : Mr. E. J. Sadgrove.
 Appointed by the Surveyors' Institution : Mr. F. H. A. Hardcastle; Mr. R. B. Mann; Mr. Dendy Watney; Mr. Walter Lawrence; Mr. Alan Faull.
 Appointed by the Institute of Builders : Mr. E. J. Hill; Mr. R. B. Chessum.
 Appointed by the National Federation of Building Trades' Employers : Mr. F. L. Dove, L.C.C.; Mr. A. H. Adamson; Mr. J. B. Johnson.
 Appointed by the National Federation of Building Trades' Operatives : Mr. J. P. Lloyd (Vice-Chairman); Mr. D. Haggerty; Mr. S. Sennett; Mr. T. H. Goodey; Mr. J. Murrey.

Ian MacAlister, Secretary R.I.B.A.

In the years 1919 and 1920 the Board held 11 meetings, and in December 1919 it issued an Appeal to the Building Trade (see JOURNAL, 6th December 1919, pp. 58-59).

In July 1919 a deputation from the Board was received at the Ministry of Munitions and laid before that Department the Board's views on the activities of the Government in connection with the building trade. Subsequently the Board had an interview with the Director of Building Materials Supply.

In August 1919 it was suggested to the Building Trades' Parliament that it would be desirable to amend the constitution of that body so as to include representatives of the professional bodies interested in the building trade. The proposal was approved by the Building Trades' Parliament, and after the necessary constitutional changes had been made the following bodies were invited to appoint 4 representatives each to serve on the Building Trades' Parliament :—

The Royal Institute of British Architects.	The Institute of Builders.
The Surveyors' Institution.	The Society of Architects.
	The Quantity Surveyors' Association.

In view of this development in the Building Trades' Parliament, the Chairman of the Board suggested that the time had now come to wind up the activities of the Board. But the representatives of the Building Trades' Employers and of the Building Trades' Operatives urged that the continued existence of a body with an elastic organisation which could be summoned at the shortest notice to deal with special problems might be of great value to the industry, and it was accordingly determined to leave the Board in being on the understanding that it could be summoned by the Chairman to meet at any time at the request of any of the constituent bodies.

In October 1920 the Board was, accordingly, requested by the Council of the R.I.B.A. to consider the question of the very high cost of building, and two meetings have been held in December 1920 and January 1921 for this purpose. At the last meeting the Director of Building Materials Supply met the Board and gave very full information as to the activities of his Department. The Board's enquiry is still proceeding.

The members of the Board feel strongly that its meetings are of great value not only as providing a convenient and ready means of discussing matters of joint interest to the representatives of the building industry, but also as affording a point of contact between the different branches and preserving good relations between them. The meetings have been marked by an air of sympathetic cordiality which has conduced to frank and friendly discussion on points of difference.

Income and Expenditure Account of Ordinary Funds for the Year ended 31st December, 1920.

Dr.	EXPENDITURE.				INCOME.				Cr.
					Exclusive of Entrance Fees and Subscriptions in advance.				
BY ORDINARY EXPENDITURE—					BY ORDINARY INCOME—				
Rent	£	s.	d.	£ s. d.	Subscriptions—	£	s.	d.	£ s. d.
Rates and Taxes	69	5	0		Fellows	3460	16	0	
Interest on Mortgage	1062	18	7		Ditto Arrears	492	19	0	
	160	0	0		Associates	3621	3	0	
Gas and Electric Lighting				1292 3 7	Ditto Arrears	578	17	0	
Fuel				150 16 5	Hon. Associates	60	18	0	
Salaries				81 15 0	Ditto Arrears	2	2	0	
General Printing, Stationery, Stamp, and				5116 3 2	Licentiates	1584	5	0	
Petty Expenses				1505 18 6	Ditto Arrears	309	5	6	
General Meetings and Exhibitions				261 2 6	Reinstated Members	166	9	0	
Housekeeping and Wages				388 8 6					10276 14 6
Advertisements				48 19 0	JOURNAL and KALENDAR—				
Examination Expenses				265 10 1	Advertisements	487	13	9	
General Repairs				753 17 3	Sales of Journal and other Publications ..	817	7	7	
Fire Insurance				88 5 8					1305 1 4
Medals and Prizes				247 12 0	Examination Fees—				
Grant to Architectural Association	100	0	0		Preliminary	812	14	0	
Grant to Architectural Association (Endow-					Intermediate	117	12	0	
ment Fund)	125	0	0		Final	43	1	0	
Grant to British School at Rome	50	0	0		Special War Examination and Exemption	1000	13	0	
Grant to Institute of Metals	10	0	0		Licentiates	683	11	0	
Grant to Institute of Heating Engineers ..	10	10	0						2657 11 0
Grant to British Engineering Standards					Use of Rooms—				
Association	5	0	0		R.I.B.A. Tenants and others				80 0 0
Grant to Conjoint Board Scientific Societies	20	0	0		Galleries				76 8 9
				320 10 0	Grissell Legacy—				
Library				172 19 7	Interest on War Loan				18 16 6
JOURNAL—					Interest on Deposit				33 1 2
Reporting	61	0	11		Deficit for the year 1920 carried to and				
Printing and Binding	1671	7	7		deducted from Balance Sheet Surplus ..				1008 0 1
Illustrations	108	0	2						
Postages and Carriage	683	8	10	2523 17 6					
KALENDAR—									
Printing	445	14	11						
Postage and Carriage	75	0	11	520 15 10					
				462 0 0					
Contributions to Allied Societies†									
MISCELLANEOUS EXPENSES—									
Donation Westminster Abbey Restoration									
Fund	105	0	0						
Paris Conference	118	1	7						
President's Portrait	165	0	0						
Purchase of Pugin Portrait	31	10	0						
Presidents of Allied Societies	36	9	3						
Council Dinner, Guests	74	17	9						
Legal and Accountants	140	1	11						
Unification Committee	32	16	8						
Retiring Allowance to Housekeeper	200	0	0						
War Memorial	62	3	4						
Architects' War Committee	37	5	10						
Civic Survey	38	13	5						
Telephone	32	17	9						
Sundries	173	1	3	1247 18 9					
Reserve for fine payable at renewal of									
Lease				7 0 0					
				£15455 13 4					£15455 13 4

† By-law 82 provides that "The Royal Institute shall, in each year, contribute to any Non-Metropolitan Allied Society not more than one-fourth of the annual subscription paid to the Royal Institute by each member thereof who is also a member of such Society, in respect of and for his subscription thereto, but in no event shall such contribution apply in the case of any one member to more than one Allied Society."

SAFFERY, SONS & Co.,

Chartered Accountants.

Examined with the vouchers and found to be correct. 13th April 1921. (HAROLD GOSLETT [F.]) Hon. Auditors.
(C. E. HUTCHINSON [A.])

Dr.	Balance Sheet of Ordinary Funds 31st December, 1920.								Cr.
LIABILITIES.				ASSETS.				£ s. d.	
To Sundry Creditors—	£	s.	d.	£ s. d.	By Premises			75000 0 0	
Sundry	1296	7	2		(Subject to a Mortgage of £4000 at 4 per cent.)				
Mortgage Interest	40	0	0		Investment (Grissell Legacy) £526 8s. 1d.				
Rent	32	0	0		5 per cent. War Loan			500 0 0	
				1368 7 2	Debtors—				
Reserve for fine payable on renewal of Lease				91 0 0	Rent and Advertisements	405	0	0	
Subscriptions received in advance				481 9 6	Due from Trust Funds	3	19	6	
Rent received in advance				6 5 0				408 19 6	
Lieutenant Francis Grissell Legacy Fund.				500 0 0	Subscriptions in Arrear for 1919 and previously			930 17 6	
War Memorial, donations received				142 5 6	Cash at Bank—				
Surplus of Assets over Liabilities, including Entrance Fees for 1920 (subject to realisation of Premises, Debtors and Subscriptions in Arrear)				75792 18 8	Current Account	842	8	10	
					Deposit Account	700	0	0	
				£78382 5 10				1542 8 10	
								£78382 5 10	

NOTE.—

A Fine of £7 per annum is payable every 14 years in respect of the premises under a Lease from the Corporation of the City of London. Notice of renewal must be given at Michaelmas, 1921, and the fine of £98 paid.

SAFFERY, SONS & Co.,

Chartered Accountants.

Examined with the vouchers and found to be correct. 13th April 1921. (HAROLD GOSLETT [F.]) Hon. Auditors.
(C. E. HUTCHINSON [A.])

Balance Sheet of Trust Funds, 31st December, 1920.

Dr.			Cr					
To ASHPITEL PRIZE FUND —			£	s.	d.	£	s.	d.
Capital—£305 1s. 8d. New South Wales								
4 per Cent. Debentures (1922) Value								
at 31st December, 1920	286	14 11						
Revenue Investments—								
£76 8s. 11d. 4½ per Cent. War Loan . . .	58	17 3						
£20 5 per Cent. War Loan	16	12 0						
£10 5 per Cent. National War Bonds . . .	9	6 0						
£20 4 per Cent. Funding Loan	13	12 0						
Balance at credit of Revenue Account . .	4	0 2						
			389	2	4			
To ANDERSON AND WEBB FUND (Board of Architectural Education) —								
Capital—£594 18s. 4d. New South Wales								
4 per Cent. Debentures (1922) Value								
at 31st December, 1920	559	4 5						
£58 6s. New South Wales 4 per Cent								
Inscribed Stock (1942)	38	9 7						
Revenue Investments—								
£56 6s. 4d. 4½ per Cent. War Loan . . .	43	8 1						
£25 5 per Cent. War Loan	20	15 0						
£30 4 per Cent. Funding Loan	20	8 0						
£25 4 per Cent. National War Bonds . . .	23	5 0						
£10 5 per Cent. National War Bonds . . .	9	6 0						
Balance at credit of Revenue Account . .	24	12 1						
			739	8	2			
To ARTHUR CATES LEGACY FUND —								
Capital—£1,160 N.E. Railway 4 per Cent.								
Preference Stock: Value 31st December,								
1920	707	12 0						
Revenue Investments—								
£137 18s. 7d. 4½ per Cent. War Loan . .	106	4 1						
£50 4s. 11d. 5 per Cent. War Loan . . .	41	14 0						
£100 5 per Cent. National War Bonds . .	93	16 0						
Balance at credit of Revenue Account . .	44	3 0						
			993	9	1			
To DONALDSON TESTIMONIAL FUND —								
Capital—£72 L. & N.W. Railway 4 per								
Cent. Consolidated Preference Stock:								
Value at 31st December, 1920	44	3 3						
Revenue Investments—								
£12 4s. 7d. 4½ per Cent. War Loan . . .	9	8 3						
Balance at credit of Revenue Account . . .	0	4 10						
			53	16	4			
To DONATION FUND:—								
Revenue Investments—								
£76 8s. 11d. 4½ per Cent. War Loan . . .	58	17 3						
£40 5 per Cent. War Loan	33	4 0						
400 War Savings Certificates	110	0 0						
Balance at credit of Revenue Account . . .	17	2 3						
			419	3	6			
To GODWIN BURSARY FUND:—								
Capital—£1,030 Caledonian Railway 4 per								
Cent. Debenture Stock: Value at 31st								
December, 1920	659	4 0						
Revenue Investments—								
£25 5 per Cent. War Loan	20	15 0						
50 War Savings Certificates	38	15 0						
£40 5 per Cent. National War Bonds . . .	37	4 0						
Balance at credit of Revenue Account . . .	28	7 11						
			784	5	11			
To GRISSELL LEGACY FUND —								
Capital—£20 0s. 8d. "B" Annuity G.I.P.								
Railway. Value at 31st December, 1920	270	9 0						
Revenue Investments—								
£20 7s. 8d. 4½ per Cent. War Loan	15	13 9						
£20 5 per Cent. War Loan	16	12 0						
£30 5 per Cent. National War Bonds . . .	28	2 0						
	330	16 9						
Less Balance at Debit of Revenue Account	2	9 9						
			328	7	0			
To OWEN JONES STUDENTSHIP FUND:—								
Capital—£2,128 Midland Railway 2½ per								
Cent. Debenture Stock. Value at 31st								
December, 1920	877	16 0						
£1,247 G.W. Railway 5 per Cent. Consoli-								
dated Guaranteed Stock	1,003	16 8						
Revenue Investments—								
£398 16s. 8d. 4½ per Cent. War Loan . . .	307	1 2						
£44 6s. 4½ per Cent. War Loan	34	2 2						
£107 9s. 6d. 5 per Cent. War Loan	89	4 1						
50 War Savings Certificates	38	15 0						
£40 5 per Cent. National War Bonds . . .	37	4 0						
£75 4 per Cent. National War Bonds . . .	69	15 0						
Balance at credit of Revenue Account . . .	94	18 4						
			2,552	12	5			
Carried forward	£6,260	4 9				Carried forward	£9,550	5

Revenue Accounts of Trust Funds for the Year ended 31st December, 1920.

Dr.		Cr.	
ASHPITEL PRIZE FUND —			
To amount paid to B. T. Bat-ford	£ 10 0 0	By Balance from last Account	£ 1 3 10
To Balance carried forward	4 0 2	By Dividends and Interest received	12 16 4
	<u>14 0 2</u>		<u>14 0 2</u>
ANDERSON AND WEBB FUND —			
To Balance carried forward	£ 24 12 1	By Balance from last Account	£ 0 17 7
	<u>24 12 1</u>	By Dividends and Interest received	23 14 6
			<u>24 12 1</u>
ARTHUR CATES LEGACY —			
To Balance carried forward	£ 44 3 0	By Balance from last Account	£ 1 19 4
	<u>44 3 0</u>	By Dividends and Interest received	42 3 8
			<u>44 3 0</u>
DONALDSON TESTIMONIAL FUND —			
To cost of Medal	£ 2 7 6	By Balance from last Account	£ 1 13 4
To Balance carried forward	0 4 10	By Dividends and Interest received	0 19 0
	<u>2 12 4</u>		<u>2 12 4</u>
DONATION FUND:—			
To Balance carried forward	£ 17 2 3	By Balance from last Account	£ 13 6 1
	<u>17 2 3</u>	By Dividends and Interest received	3 16 2
			<u>17 2 3</u>
GODWIN BURSARY:—			
To amount paid to H. Austen Hall [F.]	£ 27 10 0	By Balance from last Account	£ 24 8 1
To Balance carried forward	28 7 11	By Dividends and Interest received	31 9 10
	<u>55 17 11</u>		<u>55 17 11</u>
GRISSELL LEGACY:—			
To amount paid to F. H. Heaven [A.]	£ 10 10 0	By Balance from last Account	£ 4 12 7
To amount paid for Medal	9 18 0	By Dividends and Interest received	13 5 8
	<u>20 8 0</u>	By Amount overpaid carried forward	2 9 9
			<u>20 8 0</u>
OWEN JONES STUDENTSHIP:—			
To amount paid to G. F. Quarimby	£ 75 0 0	By Balance from last Account	£ 66 9 0
To Balance carried forward	94 18 4	By Dividends and Interest received	103 9 4
	<u>169 18 4</u>		<u>169 18 4</u>
PUGIN MEMORIAL FUND —			
To amount paid for Medal	£ 4 4 0	By Balance from last Account	£ 3 17 5
To amount paid to H. St. J. Harrison [A.]	30 0 0	By Dividends and Interest received	36 12 8
To Balance carried forward	6 6 1		
	<u>40 10 1</u>		<u>40 10 1</u>
SAXON SNELL BEQUEST:—			
To Balance carried forward	£ 32 15 6	By Balance from last Account	£ 5 5 8
	<u>32 15 6</u>	By Dividends and Interest received	27 9 10
			<u>32 15 6</u>
TITE LEGACY FUND:—			
To amount paid to P. H. Meldrum [A.]	£ 30 0 0	By Balance from last Account	£ 7 1 6
To Balance carried forward	2 8 6	By Dividends and Interest received	25 7 0
	<u>32 8 6</u>		<u>32 8 6</u>
WIMPERIS BEQUEST:—			
To amount paid to H. Austen Hall [F.]	£ 20 0 0	By Balance from last Account	£ 6 12 6
To Balance carried forward	19 19 2	By Dividends and Interest received	33 6 8
	<u>39 19 2</u>		<u>39 19 2</u>
HERBERT BAKER SCHOLARSHIP FUND:—			
To amount paid to Major C. D. St. Leger [A.]	£ 125 0 0	By Amount received from Trustees	£ 250 0 0
To amount paid to L. McConnell	62 10 0		
To Balance carried forward	62 10 0		
	<u>250 0 0</u>		<u>250 0 0</u>
HENRY JARVIS STUDENTSHIP ACCOUNT:—			
To amount paid to L. de Soissons [A.]	£ 37 10 0	By Amount received from Deposit	£ 75 0 0
To Balance carried forward	47 1 0	By Interest received to 31st December, 1919	6 0 8
	<u>84 11 0</u>	By Interest received to 31st December, 1920	3 10 4
			<u>9 11 0</u>
			<u>84 11 0</u>

SAFFERY, SONS & Co.,
Chartered Accountants.

SAFFERY, SONS & Co.,
Chartered Accountants.

Examined with the vouchers and found to be correct 13th April 1921. (HAROLD GOSLETT [F.])
(C. E. HUTCHINSON [A.]) Hon. Auditors.

REPORT OF THE HON. AUDITORS FOR 1920.

We have carefully examined the books and checked the various items therein with the accounts and vouchers for 1919, together with share certificates held by the Institute and list of share certificates deposited at the bank, all of which were found to be in order and to agree with the balance-sheet prepared by the accountants.

The estimated deficit was £3,050, whereas the actual deficit amounted to £1,008 0s. 1d. It is most satisfactory to note that the revenue exceeded the estimated amount by £3,200. This, however, is largely accounted for by the Special War Examination and the Licentiate Examination fees. It is anticipated that the former may be a source of income to a smaller extent for the next two years, while the latter automatically cease.

We are pleased to note that the Institute premises have been revalued, and such valuation now stands at £75,000.

We note that a sum of £219 3s. 7d. was received during the financial year from the executors of the late Sir Archibald Dawnay, and we understand that the balance of £5,500 has since been received.

We again note with pleasure that the work of the Institute has been carried out in a most efficient manner.

HAROLD GOSLETT.

C. E. HUTCHINSON.

THE FINANCES OF THE ROYAL INSTITUTE.

The financial statement appended to the Report of the Council, together with the report of the Hon. Auditors, who make an independent investigation into the affairs of the Royal Institute, will enable members to realise that the measures taken last year to strengthen our financial position have been successful. By the exercise of rigid economy in every direction we were able to pass through the difficulties of the war period without incurring debt. But the return of peace and the necessity of reviving all our normal activities and embarking on new ones made an increase of revenue essential. The measures recommended by the Finance Committee and proposed by the Council to the General Body were moderate, but they have proved to be adequate. The addition of one guinea to the pre-war rate of each subscription and fee, and a proportionate increase in the cost of publications, should increase our revenue from £14,447 in 1920 to £19,425 in 1921. Our expenditure of £15,455 in 1920 left us with a deficit on the year's working of £1,008. Our expenditure in 1921 should leave us with a surplus of practically £1,000. A careful supervision of expenditure is still necessary, but we are now in a position to act with more freedom in undertaking new duties for the good of the profession.

SYDNEY PERKS.

Chairman of the Finance and House Committee.

THE BUILDING EXHIBITION, OLYMPIA, 12-26 APRIL, 1921.

Inaugural Address by the President, Mr. John W. Simpson.

The honour devolves upon me this year of opening the Building Exhibition. Last year, you will remember, this function was entrusted to one of His Majesty's Ministers, Dr. Addison, at that time responsible for the Ministry of Health; in that connection, with the administration of the State housing scheme, and so more or less directly—more directly than many thought he should have been—with the building trade and its materials. That on this occasion the duty should have been transferred from such distinguished shoulders to those of a working member of the industry whose livelihood depends upon its prosperity may, I think, be fairly taken as significant of changing conditions. A fair trial has been given to politicians in their adventures into the field of technical commerce, and public opinion is pretty unanimous as to their disastrous failure.

I am well aware that it was deemed necessary during the fighting years to give free rein to extravagance in the Government departments. It may have been so necessary. I will only observe that marvels of accomplishment are easy where money is unstinted; it is in combining efficiency with economy that the work of the skilful technician differs from that of the amateur. But the war is long since at an end as regards that first stage in which civil interests must stand aside that the soldiers' peremptory needs may be satisfied at any cost. The worker replaces the fighter, repairing the loss and damage sustained in the struggle and completing the victory. Of all workers there is none more valuable to the community than the builder; his craft reaches, and affects, every section of our social life; and the great building industry, with its ancillary manufactures, employs a huge proportion of the population. Its importance is attested by the magnificent exhibition of its products for which we have to thank, and offer our congratulations to, Mr. Greville Montgomery.

It would be idle to pretend that all is well with the industry, but I think we may take some comfort, if not full satisfaction, from a comparison of its present state with that which existed at the opening of this exhibition last year. It was on that occasion, as you will remember, that Dr. Addison announced his intention to expedite housing by enforcing drastic measures against all who should venture to indulge in what he was pleased to term "luxury" buildings; a proceeding which may be compared to stopping the minute hand of a watch, in the hope of accelerating the speed of the seconds hand. The result has been what I foretold, the minute hand of general building has been checked, is still checked by foolish restriction and regulations, the increased employment which would indicate rapid progress in housing is not perceptible. There is only one way to enlarge the scope for employment,

and that is to free the industry from all Government interference and encourage every kind of building operation.

For all that, signs of improvement are not wanting; there is a tendency to fall in prices; in most trades the cost of production is reduced, for that best of all reasons, better value given by workmen for the wages received: the understanding between employers and operatives has steadily improved, despite occasional differences. The master-builder of the higher type is now prominent, who honestly desires good personal relations with the men and their unions, who does not regard them as mere "hands" for his service, but as fulfilling, equally with himself, functions which are an essential part of a single organisation. To such men the operatives are becoming responsive, slowly at first, for they have long-established suspicions to overcome—memories of a time when little consideration was shown to their grievances—but the heaven is working. The convocation of employers, operatives and professional men in the Whitley Council is beneficial in this respect, but the machine is rather cumbrous, meetings are infrequent and it is not always easy for members to attend them. In London, we have supplemented it by a Building Industries Board, composed of representatives of the employers, operatives, architects, and surveyors, which can be called at a few days' notice; and it has brought us all into most friendly intercourse. I would like to see such intimate and familiar gatherings established throughout the country, where the difficulties which affect us all can be discussed, without the reserve attending formal debate.

The British race is peculiar in its addiction to compromise and the acceptance of working arrangements which the parties thereto realise to be but temporary and unstable, rather than to the search for a permanent, sound and logical basis of agreement. To an audience composed of those interested in the technical processes of building, it is worth while to put the question, "*How should a building be paid for?*" We all know how it is paid for under existing conditions. Tenders are invited by the owner from builders; one of these is accepted and a contract is made between the owner and the party tendering. If the actual cost proves to be lower than the tender, the difference goes into the builder's pocket: if higher, into that of the owner. The method has the merit of simplicity: it is, in effect, a bet on an unforeseen and unascertainable future, where the layer of the bet accepts the risk. It differs, you will observe, essentially from the process of sale and purchase, where goods of known cost to the vendor are exchanged for an agreed sum.

This element of risk is of vital importance to both the employer and the operatives concerned with the erection of the building. Although the latter neither suffer by any ultimate loss, nor benefit by the profit, on a transaction to which they are not parties, they largely control both results; but, while their wages are diminished by an amount which the builder could pay had he not to reserve it as a margin to cover pos-

sible loss, they are not increased if the enterprise proves remunerative, though they have contributed to its success. Obviously, if we could remove this difficulty, wages could be higher, and builders would be delighted to pay them.

But I have still to answer my own question as to how a building should be paid for; incidentally, of course, at a less, rather than higher, cost than at present. First, I should like to see the risk of loss removed from the shoulders of the builder, and, incidentally, as I have shown, from those of the operatives. It cannot, for obvious reasons, be borne by the owner. If a man has but £3,000 and wishes to build himself a house, it is useless to present him on its completion with a bill for an additional £500 or £600 which he has not got. On the other hand, the actual cost, whether less or more than £3,000, is the price which he should properly pay for his house. Let us, then, transform our contractor from a speculator in building operations—uncertain whether for all his skill and experience the work he undertakes may not cost him more than he receives for it—into a professional Director of Building, remunerated for his services according to his ability. Here is a certain reduction effected on the normal margin for profit; for a man sure of remuneration will work for less than he whose gains on one transaction must be large enough to cover his losses on others. The functions of such a director would be pretty much those of the present master builder, buying material, employing labour, and supervising the building. He would give to the owner an estimate of the total cost, and on his skill and success in not exceeding his estimates his reputation and future employment would depend. We have still the risk of such an excess to deal with, and this I suggest is insurable, and could be taken by a company at a far lower amount than the percentage allowed by an individual contractor. It would be the duty of the Director of Building to advise the owner as to the amount to insure, and the greater his skill and experience the less would be the margin needed. I would suggest that such insurances might be sound and profitable investments for the Trade Unions, and the business a direct encouragement to their members to prevent unnecessary cost. I am informed that certain American builders have already become professional directors of building, on the lines I have indicated; and that they have made a great reputation by the extraordinary closeness of their estimates to the cost of the work they undertake.

I have used the word "wages" several times. To my mind one of the chief obstacles in the way of better labour conditions is the hopelessly illogical and unsound system of paying a man, not for the work he does, but for the time he takes to do it. The remedy lies in a system of fixed rates for piece-work. I am well aware of the great objection of the unions to such a system, based on its abuse by contractors cutting competitive rates in times past; but we have to recognise the advent of the different class of employer to which

I have alluded, animated by other motives than those of mere profit and worthy of the operatives' confidence. The actual rates should be determined, and revised annually, like the famous "Série de Prix" in France, by the great Institutes of Architects and Surveyors, who have no personal interests to bias them, rather than by the usual ding-dong bargaining between the parties concerned; and they should be formally approved by the Government as the standard of payment.

I have referred to the ideals of the employer of to-day as being higher than those of his predecessors. Let us not forget that the operative also is of higher intelligence and education than formerly, and in my belief not so much influenced by the question of wages as is generally assumed, and much more by a vague desire for a better standard of existence. The most important thing at the present time is to provide the artisan with an intellectual interest in his work irrespective of its evident utility, some subjective reason which will satisfy his mind with regard to the mechanical operations—laying bricks, covering wall surfaces with plaster, or what not—in which he is employed. If it was clear that these processes were part of an ultimate objective of common benefit to all concerned, and that by performing them quickly and well he was contributing to the prosperity of the whole union of workers to which he belonged, I do not doubt that the operative would respond to such a motive with far more energy than he would to that of his private advantage. By the adoption of piece-work, properly remunerated, the income of the worker would be limited only by his own ability to earn it; by directly associating the union with the financial profit of building they would be interested in keeping down cost, and discouraging slackness in their members; and by freeing the builder from risk of loss, the interests of the owner would be identified with his own professional reputation.

I offer you my apologies for so very technical an address. It is commonly admitted that the methods by which buildings have been hitherto erected require alteration to meet changed conditions; the ideas I have submitted to you may, I hope, contribute to a more excellent procedure.

I have the satisfaction to announce that the Building Exhibition of 1921 is now open.

Mr. A. J. FORSDIKE, speaking on the question of payment by results, said that some of them laid a scheme before the Cabinet only a few weeks ago, one part of which was the payment of a bonus on output. While that part of the scheme was not being supported by the Government at the present time, they believed, sooner or later, it would be to the best interests of the trade that something like it should be adopted.

Sir CHARLES RUTHEN [F.], President of the Society of Architects, suggested that various sections of the building trades should meet together and arrange for operatives to be paid a reasonable wage for a reasonable day's work.

THE SCULPTURES OF CHARTRES.

The Library is in receipt of a generous gift from Mr. Thos. E. Colcutt, Past President and Royal Gold Medallist, consisting of six handsome volumes of heliogravure plates, published in Paris, five of them depicting the sculptures on the three great porches of the Cathedral of Chartres, and the sixth the sculptured work of the interior. Through Mr. Colcutt's instrumentality, too, the JOURNAL owes to Mr. Derwent Wood, R.A., the translation below of M. Emile Mâle's graceful preface to the volumes describing how the originals of the plates came into being, together with Mr. Wood's expert criticism of the sculptures—criticism which has a special interest as showing the appeal these venerable masterpieces of figure representation make to the sculptor of our day, and their value to the architectural student, not only as an object-lesson in technique, but as a fruitful source of inspiration.

Mr. Colcutt, in a letter to Mr. Derwent Wood, says :

I saw these wonderful works for the first and only time about 46 or 47 years ago. The memory of their beauty is still fresh and alive. So I procured the work and am giving it to the R.I.B.A.

It occurred to me that some appreciation or criticism from a sculptor of high standing would be a great help to the architectural student. It would help him to look for form in drapery, for pose and expression, which, as an architect, I think, are to be found to a high degree in this mediæval work. When newly published works of importance are added to our Library, it is usual to draw some attention to them, in a few lines, in our JOURNAL. We shall be very grateful if you can do this for us.

Mr. Derwent Wood very kindly responded by sending the following contribution :—

I cannot render better homage to this work than by endeavouring to make a translation of M. Mâle's Preface to Vol. I. It is in itself a well-merited compliment to the great efforts now happily completed by the Keeper of Chartres Cathedral.

LITERAL TRANSLATION OF M. EMILE MÂLE'S PREFACE.

M. Houvet is not an archæologist, he is not a member of any great academy or society; moreover, he belonged to no university; he is simply, as he states in the first page of his tomes, the Keeper of Chartres Cathedral. But he is a keeper who thoroughly appreciates the value of the treasure confided to his care. He has read everything that has been written on his cathedral and he knows it as well as his masters.

If science had been his only goal perhaps he would not have undertaken this work, but he adds to this a passion for his enterprise. Many years passed by him in the contemplation of this world of statues and stained glass have not cooled his admiration; quite the reverse, he is constantly discovering therein new beauties. It is this that spurred him on in the task he undertook—namely, to reveal to all the marvels that he was wont to display to the few. An heroic undertaking! In days gone by, the Ministry of Education commenced, with the collaboration of Lassus, of Dideron, D'Aumary Duval, and Gaucherel, also of many others, an immense work dealing with Chartres Cathedral.

But the work was of such dimensions, and so arduous, there were so many statues, bas-reliefs and windows to delineate and describe, that the collaborators' courage failed them, and the book was largely stillborn.

That which the Ministers, famous artists and savants were unable to achieve, M. Houvet attempted alone and unaided. He bought a fine camera, and for years with rare patience he photographed the statues and windows. Such is the admirable courage and energy of individual effort in France: a private individual succeeds where the collective effort of a State fails. Germany expected success from collective masses subjected to rigorous discipline: we place our faith in the miracle achieved by the goodwill of the individual—and frequently we are right.

M. Houvet gives us to-day the first volume of the Album that he proposes to consecrate to the glory of the Cathedral of Chartres. We shall find therein the Old Porch or Royal Porch reproduced in ninety-four plates. In the great work—or great failure—published by the State, only four plates are devoted to this section: the difference is obvious.

What joy for the art historian to turn over these pages! At last we can really study these masterpieces of twelfth century sculpture, this grandiose monument, a fountain-head of art and the source of inspiration of so many French and foreign artists. What more eloquent than these fine photographs? They tell us the secrets of their creators: their different handling shows us different geniuses. We distinguish in them the master and the pupil: the groups occur apparently of their own accord.

We may, therefore, safely prophesy that from now on M. Houvet will be rendering with his photographs as many services to historical art as the wiseacres with their books. No enterprise is more worthy of encouragement than is this great work.

A FEW NOTES ON THE SCULPTURE OF CHARTRES CATHEDRAL ROYAL PORCH—A.D. 1145-1150.

The three doors give access to the central nave. The right bay, or Virgin's bay, represents the entrance of Christ into the world, the left bay His Ascension or the end of His life on earth, whereas on the central bay in the tympanum is sculptured the Second Coming of our Lord on the event of the Last Judgment. His life on earth is entirely represented by two hundred statuettes carved on the capitals of the porch, all of them showing the greatest charm.

The subject of the central tympanum is the Christ of the Apocalypse. This work shows great dignity, and it is very solemn. The draperies are very far from being real, yet they are exceedingly beautiful, and do not impair the main shape or action of the body. The head of Christ is lovely, the work of a great designer. Note what a mass of light the figure contains, and how exquisite the faint disturbance on these surfaces is, caused by the rhythmic lines of draperies.

The draperies of the Kings and Queens of Judea on the Royal Porch are exceedingly archaic in form; they suggest to me Chinese work. It is probably a mere coincidence. Look at the central figure of Plate 12. It is extraordinarily Oriental in style. The queen in Plate 4 has a measurement of nine heads, but she is a masterpiece of style. She looks very modest. I feel certain that these statues were carved away from the building. If not, it seems difficult to find out how the

carvers got at the highly enriched inter-column to work them.

One of the Queens of Judea is $10\frac{1}{2}$ heads in height. Where do canons of proportion come in? The answer is that when an artist has true feeling for beauty, he may place his canons on the shelf. These statues surely prove it.

The sculptors on this work were in close touch with the designer of the fabric. Their work never does the slightest outrage to the structural effect. It rises heavenward with a great perpendicular growth. They probably worked from drawings, and there must have been a great many sculptors employed between 1145 and 1150 to carry out this work in five years' time.

In front of these carved works one feels the inadequacy of the academic life figure to fulfil a similar purpose, such as is here shown by the applied sculpture on this Shrine.

Is not design fitted to the structure the guiding principle in this fulfilment of beauty as shown in the completed effort? Design executed by men imbued by the art of masonry and sculpture, and by them elaborated into the fretted $10\frac{1}{2}$ -headed long figures of the Royal Porch. These workmen contained in themselves a profound excitement for art and craft, governed, may I say, more by an intense joy of religious fervour than by the desire to shine as individual executants seeking self-fame!

F. DERWENT WOOD.

Of the sculptures in the interior represented in the sixth volume of this magnificent work, Mr. B. Pegram writes in a letter to Mr. Colcutt:—

"I am much impressed by the extraordinary beauty of many of the figures: particularly 'Science,' 'God creating the birds,' 'Judith covering herself with ashes'—the drapery of this figure is most admirable; also by the divine majesty and grace expressed in the coronation of the Virgin, and by the intensity of thought expressed in the figure of 'God creating Day and Night.' I hope these works will be well studied by architects and sculptors. They would have a very stimulating influence on their work."

CORRESPONDENCE.

R.I.B.A. Public Lectures on Architecture.

To the Editor, JOURNAL R.I.B.A.,—

SIR.—Early in 1920 the Literature Standing Committee moved in the direction of arranging a series of public lectures on architecture and the allied arts. It is now possible to say that the first set of lectures will be delivered during April, May and June on Thursdays at 5 p.m. Further particulars are to be found elsewhere in this issue of the JOURNAL. The primary object of these lectures will be to encourage a wider public interest in the subject of architecture. It is hoped that they will be educational in no small degree, and the non-technical character at which we aim may appeal to a wide circle. A further series of a

more technical nature will, if possible, be arranged for the coming autumn. The purpose of these will be to bring architects and others actually concerned with building and the building crafts together so that the knowledge and experience available in both art and industry may be considered and examined.

If it is found that these lectures supply a want, the Literature Standing Committee will be encouraged to proceed. But it is expected that members of the Institute will be the first to support the scheme and make it a success by doing what they can to attend or ensure attendance at the lectures.—Yours faithfully,

H. C. CORLETTE [F.].

Hon. Secretary, Lectures Sub-Committee.

The Birmingham Housing Committee and the Local Panel of Architects.

13th April 1921

To the Editor, JOURNAL R.I.B.A.,—

SIR.—With reference to the note under the heading of "Chronicle" which appears in the current issue of the JOURNAL, I think it would be of interest to members to know that the arrangement just concluded between the Birmingham Housing Committee and the local panel of architects really owes its origin to the goodwill of the Department.

As a matter of fact, the panel scheme now to be brought into operation owes its inception to a suggestion I made at a meeting of the Birmingham Architectural Association just over a year ago, and the negotiations have been helped and forwarded by the Department throughout.

I ask you to make some note of these facts, as there is a regrettable tendency nowadays to consider that official architects and their departments are necessarily opposed to their practising brethren, and your note as it stands will unfortunately probably be read to record a victory over a municipal department, rather than as the result of friendly co-operation.—Yours faithfully,

WILFRID TRAVERS [F.].

Architect and Deputy Housing Director,
City of Birmingham.

Books and Pamphlets Received.

Building Repairs: A Practical Guide to their Execution: for the Use of Architects, Builders, etc. By Ernest G. Blake, M.R.S.I. 80. Lond. 1920. 8s. 6d. net. [B. F. Batsford, Ltd., 94 High Holborn.]
The Empire Municipal Directory of Local Authorities and Officials and Year Book for 1921-22. 39th year. 10s. 6d. net; 11s. post free. 40. Lond. [The Sanitary Publishing Co., 8 Dream's Buildings, E.C.]
The Story of the Glasgow Institute of Architects for the First Fifty Years: Being two Lectures delivered by ex-President John Keppie, F.R.I.B.A., A.R.S.A., at the opening of the Session 1919 and 1920. 80. Glasgow. 1921. 2s. 6d. [James C. Erskine and Sons, 140 Hope Street.]
British Empire Forestry Conference, London, 1920: Proceedings, Resolutions and Summary of Statements. [Forestry Commission, London.] La. 80. London. 1920. 7s. 6d. net. [H.M. Stationery Office.]
Inauguration du Monument de la Reconnaissance Belge à Londres. Par Jules Brunfaut, Président de l'Académie Royale de Belgique. (Extrait des *Bulletins de la Classe des Beaux-Arts*, Académie Royale de Belgique, Nos. 11, 12, pp. 136-37.)
Le "Town-Planning" étudié en Avion, Discours prononcé par Jules Brunfaut, Président de l'Académie Royale de Belgique. (Extrait des *Bulletins*, Nos. 11 and 12, pp. 160-65.) [M. Hayez, Brussels.]
National Art Survey of Scotland, Vol. I.—Examples of Scottish Architecture from the twelfth to the seventeenth century. Reproductions from the National Art Survey Drawings, published by a Joint Committee of the Board of Trustees for the National Galleries of Scotland and the Institute of Scottish Architects. Folio. Edinburgh. 1921. [George Waterston & Sons, Ltd., Edinburgh.]



9 CONDUIT STREET, REGENT STREET, W., 23rd April 1921.

CHRONICLE.

Mr. Munby's Paper and Illustrations.

Mr. Munby's admirable Paper on "The Utility of Research on Building Materials," the interesting way in which the lantern illustrations were presented, the eminence in their own particular line of some of the speakers and visitors, and the valuable and most suggestive discussion which took place, made the Meeting last Monday one of the most interesting of the Session. The special guests at the Council Dinner that evening, all of whom were afterwards present at the Meeting, included the Right Hon. the Earl of Lichfield, Sir Richard Glazebrook, K.C.B. (late Director of the National Physical Laboratory, Teddington, and now Director of Aeronautics, Imperial College, London), Sir E. Ray Lankester, K.C.B., F.R.S., Mr. H. O. Weller (Director of the newly formed Board of Building Research under the Industrial Research Department), Mr. J. Allen Howe (Assistant Director to the Geological Survey, and author of "The Geology of Building Stones"), Mr. Hugh Davis (Inspector in the Technical Branch of the Board of Education), and Mr. E. B. Moullin (Architectural School, Cambridge). Among visitors at the Meeting were Major E. O. Henrici, O.B.E., Dr. S. E. Chandler (Imperial Institute), Dr. Prior (British Museum), Professor Percy Groom, Mr. H. W. Richards (Principal, School of Building, Brixton), Mr. Arthur Sage (Board of Education), Mr. C. T. Millis (Principal of Borough Polytechnic), Mr. T. Henwood, Mr. Roland B. Chessum, etc.

Of special interest to the audience were the projections on to the screen of the demonstration tanks, showing the effects of immersion in a solution of sulphuric acid of pieces of sandstone and limestone, and colour tests to distinguish pieces of silica and lime from brick. Still more interesting were demonstrations by the same medium showing: (1) the formation, in an orderly arrangement, of crystals of metallic lead from solution by electrolysis, and (2) the slow and rapid solution of zinc in acid to illustrate the life of pure and impure zinc in zinc flats in towns. Slides of greatly magnified sections of tiles prepared by Mr. H. W. Burrows [A.] illustrated the lasting nature of the old hand-made tiles compared with those of modern machine-manufacture. A red roofing tile believed to be Roman,

taken from a fifteenth century building in Suffolk, is still in good condition; others 70, 150, 200 years old are in excellent condition, while machine-made tiles, specimens of which were exhibited, had weathered so badly that the roofs from which they were taken had to be renewed after a decade or so. There were also exhibited slides of some of the building stones which the Geological Survey, in conjunction with the R.I.B.A. Science Committee, have had exposed in London for ten years, their condition both at the beginning and end of this period being shown. Slides showing specimens of iron and wood covered by paint and varnish prepared from panels lent by Messrs. Mander Bros. were also exhibited.

Mr. Munby's Paper, with illustrations, together with the discussion and some of Mr. Burrows' illustrations, will be published in the next issue.

Building Contracts.

The Council have had under consideration the Form of Contract No. 3 which is issued by the Ministry of Health. The Council consider that this form leaves too much in the hands of the contractor, who is protected at every turn and has little responsibility. In the opinion of the Council the ordinary lump sum contract is greatly to be preferred both from the employer's point of view and in the interests of the ratepayer.

Council Resolutions on the Conduct of Members.

The attention of Members and Licentiates is called to the following Resolutions of the Council:—

1. That any Member or Licentiate of the Royal Institute who takes part in any competition as to which the Council shall have declared by a Resolution published in the JOURNAL of the Royal Institute that Members or Licentiates shall not take part because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions, or who acts as Architect or Joint Architect for a work which is or has been the subject of a competition in which he is or has been engaged as Assessor, shall be deemed to be guilty of unprofessional conduct, and shall be liable to reprimand, suspension, or expulsion.

2. That, in the opinion of the Council, the Royal Institute having adopted a Scale of Professional Charges, it becomes the duty of members, when giving advice relating thereto, not to weaken the value of the Scale.

R.I.B.A. Visit to New London County Hall.

The second visit of the series now being organised by the Art Standing Committee will take place on Saturday, 7th May, at 2.30 p.m., when Mr. Ralph Knott, the Architect to the new London County Hall, has kindly arranged to conduct a party of Members and Licentiates of the Institute over the new buildings. Members and Licentiates wishing to join the party should apply to the Secretary R.I.B.A. for the necessary ticket of admission not later than Tuesday, 3rd May.

Extended Activities of the Office of Works.

In the House of Commons on Thursday, 14th inst., on a vote of £307,900 to complete the sum necessary for the salaries and expenses of the Office of Works,

Sir A. MOND, Minister of Health, formerly First Commissioner of Works (Swansea, W., Co.L.), said the Committee would be glad to know that there was a net decrease on this Vote over last year of £30,000. He pointed out that a very diastic and careful survey of the establishment of the Department had been going on by the Treasury up to the time that he left the Office of Works, and as big reductions as possible had been made. Under his charge the Department had been considerably reorganised, particularly on the technical side. A large amount of extra work had been carried out by the Department in the last few years. The number of the staff and the amount of money spent on it had increased, but the proportion of expenditure on staff to expenditure on works in the current year worked out at only 5.5 per cent., compared with about 6 per cent. in 1913-14. That was the more satisfactory because the remuneration received by the staff had been increased by the addition of a war bonus.

Sir PHILIP PILDITCH (Spelthorne, Co.U.) said he wished to draw attention to certain figures in the papers before the House, because from them some little idea could be gained of the increase of the activities of the Department. On page 169 it would be seen that the staff had increased from 581 in 1920 to 997 this year. There was a note stating that the two figures were hardly comparable because of some temporary men having been engaged in one of the years. It would have been desirable if some attempt had been made to make the figures comparable. At any rate, he hoped the Minister would be prepared to give some further explanation so that a comparison could be made. For the last complete year before the war, this staff, which was largely a professional staff, reached a total of 384. Continuing, Sir Philip Pilditch said: I shall not attempt to make comparisons between expenditures. That would be exceedingly difficult to do in a Department of this kind, when the cost of the staff has developed and is mixed up with the cost of carrying out works. But these three figures are in themselves an indication that in some way or other the activities of the Department must have been very largely increased during the period mentioned. We know, of course, some reasons why they have increased. There was a debate in the House a few months ago regarding the new work placed upon the Department in reference to housing. I am not going to make an attack upon the Department for having, in circumstances of great emergency and crisis, undertaken the duty of building 10,000 houses. I think it is quite likely that in many cases the local authorities were unable to do this work, and that the aid of some special institution like the Office of Works was desirable; but I would like to point out that there are serious dangers in a public Department undertaking in any large way the provision of houses, even in the present crisis, because, quite apart from all the other points that were raised when this matter was previously discussed, apart from the difficulty of getting proper comparisons between works executed by the Department and works executed by private effort, or as to the procedure adopted by public Departments and so forth, quite apart from that class of consideration, there is this broad consideration to be borne in mind—namely, that if you once set up a big central State Department to do housing, the tendency will be, unless it is very carefully watched, for the Department gradually to absorb all the housing, or as much of the housing as it can secure. For this reason the tendency will be for the Department to dispossess the local authorities, and in some measure also to dispossess the element of private enterprise. Why should a local authority take all the trouble and run the gauntlet of all the local differences of opinion in order to carry out this difficult undertaking if there is a

Government Department which is prepared to do it, and it is known that, whatever the loss may be, it will come out of the pocket of the State? While I am not urging that we should ask the Minister to stop the building of these 10,000 houses, I hope he will tell us that this is meant to be the limit. We do not want to see a great bureaucratic, architectural building works Department set up at the centre to absorb the duty, or any considerable part of the duty, of undertaking the housing of the people, which it was originally intended should be carried out either by fair partnership between the localities and the central authority or in a limited way by private enterprise. There is another respect in which the activities of the Department in regard to building have developed very much, and it is no doubt partly responsible for the increase both in the cost of the Department and in its personnel. That is the fact that, whereas the Office of Works was originally started mainly as a Department for managing, repairing, and looking after existing public buildings, royal buildings, etc., by degrees it has gradually come to be an architectural and building Department. I believe that a short time since there was a Cabinet Minute to the effect that no public buildings required by the War Office, the Admiralty or the Air Force should be carried out by the Office of Works. As I understand it, it was intended by that Cabinet Minute that such large public buildings should be designed by architects in open competition, whereby you could get the advantage of whatever artistic elements there are in the country. Now I am given to understand that the Cabinet Minute has been ignored by the Office of Works, and that at present a building is in progress for the Royal Air Force, one of the prohibited Departments under the Cabinet order, that there is a large building being carried out by the Office of Works for the Ministry of Pensions at Acton, and also that the building which is to increase the size of Somerset House is being carried out by the Department. I think it would be exceedingly undesirable if the activities of the Department were allowed to develop themselves along either of those two lines, as they are apparently developing. So far as housing is concerned, we ought to have a distinct assurance from the Minister that unless some new circumstances occur his Department will limit itself to the authority which it has already obtained from the House. So far as the other buildings are concerned, I hope my right hon. friend will be able to give an assurance that this tendency to infringe upon the province of the independent builder and of the independent architect will be checked, and that it will not go any further than, apparently, it is going at the present moment. I have nothing but praise for the admirable way in which the Department carried out the emergency duties laid upon it during the war in building things which were required in a hurry in this country, and for its work in France in the reinstatement of buildings which were destroyed in the German operations at the beginning of 1918. I am not desirous of entering into any campaign against the activities of the Department in such emergencies, but I say that as a matter of principle the Department should, generally, confine itself to its original duties, the maintenance of public buildings that are in existence, and that, except for a nucleus held in hand for emergencies, should not, either in the domain of design as architects, or in the domain of construction as builders, or by acting as contractors by the employment of workmen direct, proceed to aggrandise itself further than it has done. I hope the right hon. gentleman will be able to give us some assurance on the lines I have put before the House.

Sir ALFRED MOND: The hon. member for Spelthorne at the beginning of the Debate asked a question as to the policy of the Department, and was good enough to pay a high tribute to what had been done by the Department during the war. Like many people, however, he appears to have come to the conclusion that people who did very fine work during the war in connection with the erection of buildings, and other work of that kind, are, now that the

war is over, incapable of again doing anything useful for the State. I cannot follow that argument. These people were capable of doing good work for the State in war time, and surely it is reasonable to employ their services for the State in peace time. My own view is that there is nothing more wasteful than to have a number of Government Departments carrying on building separately. It is a much more businesslike thing to concentrate your building on one Department and have it adequately staffed and adequately worked. It cannot be the best economy to carry out four building Departments instead of one, and that is the view the Treasury took with regard to buildings for the Air Board.

Sir P. PILDITCH: I do not think it was ever contemplated that there should be four different Government Building Departments. I understood the Cabinet order to be that the arrangement which has subsisted up to the present, that the Admiralty, War Office and Air Force buildings should be erected by private enterprise, should be maintained.

Sir A. MOND: The hon. member is well aware that the War Office always had a Building Department to build barracks and all kinds of things all over the country.

Sir P. PILDITCH: On a small scale.

Sir A. MOND: It does not matter if the scale is small. The question is whether it is wasteful. I think the hon. gentleman rather confuses two things. A building Department, with the direct employment of an architect, is different from building by private contractors. Someone has to issue tenders and someone has to supervise and to measure up. Let me take the case of the building the Office of Works is housed in now. Like all the other great Government buildings, it was designed by a private architect, and it was carried out by a contractor, but it was carried out under the control of the management of the Office of Works as a building Department, and the War Office in exactly the same way. It does not follow that because the Office is a building Department it employs the architectural talent it possesses. It may be better to get an outside architect, but someone has to look after the outside architect and pay him his money, and someone has to look after the contractor and his accounts, and that is the real function of the Office of Works. Whether it likes to employ its own architectural staff or not must be a matter for the First Commissioner to make up his mind on. The building at Acton is very important from the point of view of office accommodation. The problem was to put up the cheapest form of office accommodation that could be devised, of which the Department had a great deal of experience during the war. It makes no pretence of being a great public building, but the result, from what I was told before I left the Department, will be very satisfactory. The hon. member for Spelthorne asked for some undertaking to be given that this work was not to be indefinitely extended. I can no longer speak as head of the Office of Works: I have to speak on housing as Minister of Health. I am certain that it is not the intention to extend this policy, and it never was the intention. It was done because of a kind of S.O.S., which produced very useful results. The Office of Works have given very definite instructions for the getting of lump-sum contracts for the work as far as possible, and I am glad to say that very much more reasonable lump-sum contracts are now beginning to come in. The position has changed very much in the last six months, and when tenders are really meant to be tenders on a reasonable basis, I have no doubt the Office of Works will go back to the performance of its usual departmental work. It is impossible to expect anyone to define exactly the functions of a Department, but I can give an undertaking that these temporary schemes are not going to form part of the permanent undertaking of the Office of Works. I agree in the main with what has been said, and I do not think that it is advisable that any Government Department should be responsible for the only building schemes in the country. You cannot nationalise building, and I do not think anybody would attempt to do so.

There must be a happy medium, and I hope that the happy medium which has been observed between the official architects and the contractors will be continued in future, and that the harmonious relations which have existed between the technical staff at the Office of Works and the profession outside, which are very essential and important, will go on unimpaired.

Collaboration of Architects and Sculptors.

The following correspondence is published by direction of the President:—

6½, Suffolk Street, S.W.: 15th April 1921.

To the President R.I.B.A.:—

DEAR SIR.—The Council of the Royal Society of British Sculptors would feel greatly indebted to you if you would make known to your members the following suggestion with a desire that architects and sculptors may combine more closely in their work, with a hope that the highest standard of sculptural decoration in England may be achieved.

My Council believe that at the present time it is the practice of a great number of architects seeking the sculptors' aid, to proceed at once to a firm of trade sculptors, who at best must employ or contract with practical sculptors of possibly second or third-rate abilities. In this way they feel that inferior work at a higher cost is often the result.

My Council is sure that first-rate sculptors will be only too pleased to furnish an architect with preliminary estimates, designs, and any other assistance in their power; so that if you are willing to influence your members in this direction, they feel that fine work will be produced at a lesser cost than at present, to the benefit of the art, and the satisfaction of clients.

They also notice that competitions for works requiring the combined services of the architect and the sculptor are being organised, and that very often sufficient provision is not made for carrying out the sculptural part of the design in a fine manner. In such a case they think that a preliminary consultation between the members of both arts would be very beneficial.—Yours faithfully,

PERCY EDNALL, *Secretary.*

The following reply has been sent:—

21st April 1921.

The Secretary, Royal Society of British Sculptors,—

DEAR SIR.—The President of the Royal Institute directs me to acknowledge and thank you for your communication of the 15th instant, and to say that he cordially welcomes the suggestions contained therein. He has directed your letter to be published in the official JOURNAL of the Royal Institute for the information of members.—Faithfully yours,

IAN MACALISTER, *Secretary.*

Public House Prize Design Competition.

Brewers Hall, E.C.: 18th April 1921.

To John W. Simpson, Esq., President R.I.B.A.:—

DEAR SIR.—The Court of the Brewers' Company desire me to tender you their sincere thanks for your

kindness in undertaking the management and assessing of this competition, and to say how much they appreciate the generous way in which you spared neither time nor trouble in making it a success.—
Yours faithfully,
E. H. EVANS, *Clerk*.

Art in Common Life.

Sir Aston Webb, P.R.A., in an article in *The Times* of the 22nd March (extensively quoted in the last number of the JOURNAL), expressed his belief that, under certain conditions, the Royal Academy would be willing to call a meeting of representative men for the discussion of art in its direct relations to the public life. *The Times* Special Correspondent now states that a proposal has been made, and is being considered, that conferences should be held similar to those organised some 30 years ago by the National Association for the Advancement of Art.

This Association (says *The Times* Correspondent) came into being, perhaps, before its due time. There was not then that interest in town-planning and similar phases of organised public improvement which is felt at the present day. But it promoted three congresses in three successive years in Liverpool, Edinburgh and Birmingham, which attracted much attention at the moment and had results both direct and indirect. Lord Leighton was president, and men like Alma-Tadema, Alfred Gilbert, and Walter Crane took the lead in the six sections. A great feature was that these sections held combined meetings. Painters talked with sculptors, and sculptors with architects. The co-ordination of the arts was discussed in regard to public buildings. Here the example of 30 years ago should not be thrown away. The evils arising from the segregation of the arts have been clearly brought out in the discussion of the subject in our columns.

Sir Martin Conway, M.P., who was then Professor of Art at University College, Liverpool, acted as honorary secretary to the congresses. "I had to give up the post," he told me, when asked for his experience of the movement, "because I wanted to travel. As nobody else offered to do the work—and there was a good deal of it—the movement fell to pieces. It was started at Grosvenor House, at a meeting presided over by the late Duke of Westminster, and when the association was dissolved there was a balance in hand which was spent on the purchase of works of art for the three cities where the congresses had been held."

"That in Liverpool was concerned chiefly with the sculptural decoration of St. George's Hall. Many well-known artists read papers and took part in the discussions. A practical result was that the sculptural decoration, which the City Council had previously decided to stop, went on."

"I certainly think the time has come when the movement might very well be revived, and art congresses be held at intervals both in London and the large provincial cities. If the right people would come forward—people in whom the public have some confidence—I think opinion would be affected and common action influenced in matters of Art in Common Life. To get the right men it would be necessary to fix the meetings for, say, the month of October—not at times of little leisure for artists, as the long summer days."

Sir Whitworth Wallis, Director of the Birmingham Art Gallery, who was the local hon. secretary of the National Art Congress when it was held at Birmingham in 1890, agrees with Sir Martin Conway that the time has come when that movement might very well be revived. Given the right people to direct the Congress, its revival, he thinks, might be beneficial, for there are many more art

movements to discuss now than in the eighties and nineties, and there is no doubt the mass of the people take a more intelligent interest in art and matters appertaining to art than they did thirty years ago.

"I am not aware" (he says) "that any great practical result was achieved by the old Congresses, despite the interesting papers and discussions; but we have advanced since then, and there is a more sympathetic public sentiment towards art to-day. The activities of the young artists and craftsmen of the present day should lead to the promotion of a most interesting conference. The affairs of the National Association for the Advancement of Art were wound up in 1906, and the balance in the hands of the then hon. treasurer, Sir Cuthbert Quilter, M.P., was invested in a trust called the Art Congress Studentship Fund, the trustees being Sir Reginald Blomfield, Sir Cuthbert Quilter (who was succeeded by Professor Lethaby), and myself. Scholarships have been awarded to deserving students of the applied arts, and in one case the studentship was a very great advantage to the recipient. As far as I know, the balance of the fund was not spent on acquiring any works of art, but was used for the purpose of scholarships only."

Norwich Cathedral.

Prince Frederick Duleep Singh, F.S.A., in a letter to *The Times* (9th April) recalls that some time ago a project was started for carrying out "restoration" work at the east end of Norwich Cathedral. A committee of well-known Norfolk and Norwich men, with the sanction and assistance of the Dean and Chapter, proposed to raise funds for a war memorial, which was to take the form of the reconstruction of the twelfth-century group of chapels about the east end of the Cathedral. The central, or easternmost, of these was destroyed in the thirteenth century, when a larger and square-ended Lady Chapel was added, and this, in its turn, was pulled down, leaving that end of the Cathedral in the state in which it has now been for some 350 years.

"The scheme met with considerable opposition (says Prince Duleep Singh), and the whole subject was fully ventilated in the local Press. . . . May I restate the fact that to rebuild a chapel in imitation of any of those which once existed would, of necessity, involve the destruction of a certain amount of historic evidence, as well as making a glaringly modern addition which would, for many a generation, clash with the beauty of this venerable Cathedral?"

"It has been suggested that the more important thirteenth-century chapel was erected in consequence of the then growing 'cult' of the Blessed Virgin taking the place of the 'trefoil' which was symbolical of the Trinity. But even if that were the case, and if—as I am now informed—the authorities desire to complete the trefoil of chapels, to emphasize the doctrine of the Trinity while at the same time forming—but not as its primary object—a memorial to the fallen, this hardly seems a sufficient reason why large sums should be spent in obliterating the most picturesque portion of the Cathedral which still exists."

"It had been sincerely hoped by those who have at heart the preservation of all that is possible of Norwich Cathedral that, as nothing had been heard of it for so long, the scheme had been dropped; but I have lately been informed by the Cathedral authorities that not only is this not the case, but that further contributions are being invited, so that at least

the foundations can be laid and the walls be carried up to the wall-plate, and a temporary roof—until funds permit of its completion—be erected above. In these circumstances, I feel that the only thing that can be done is to appeal, through your columns, to all who are interested in such matters to try to bring public opinion to bear and to express itself strongly enough to save this—as it would be termed in France—'monument historique' from being defaced."

Mr. A. R. Powys, Secretary of the Society for the Protection of Ancient Buildings, in *The Times* of a later date, calls attention to an aspect of the case to which Prince Duleep Singh has made no reference.

The cathedrals of England (says Mr. Powys), although they are in the charge of their deans and chapters, are in reality national possessions, and it should not be left to these authorities alone to decide whether or not an alteration should be made which is of such importance as that proposed at Norwich. The Church has recently shown by its own action in the formation of diocesan committees that it is aware of this fact when the matter in question is the alteration of parish churches, and there is little doubt that these new organisations are becoming capable of preventing harm. In some dioceses, and Norwich is not one of them, the new system is working well. But the growing confidence in the Church as the right guardian of its buildings will be rudely shaken if it allows the proposed new chapel at Norwich to be built; and this is particularly so while the memory of the threat to destroy some of the churches of the City of London is still rife.

This Society has always hoped that the Church would arrange some means whereby the public may be assured that cathedrals will not be harmed by "restoration" or additions. But it looks as though this hope is vain, and that, little as the ordinary Englishman may like it, it is now time for the Government to step in and place the guardianship of cathedrals under the control of Parliament. Every one, even Government officials, I believe, is nervous of Whitehall, but it is certain that were the care of our cathedrals confided to H.M. Office of Works this Society would never again have to protest against a scheme of this sort.

Sir Charles Nicholson [*F*] replying in *The Times* of the 15th, in a letter headed, "Harmony in Restoration," says:—

As I understand the matter, the adverse criticisms made by the Society for Protecting Ancient Buildings and its supporters against the proposed rebuilding of the missing eastern chapel of Norwich Cathedral are based upon the contention that the chapel in question is not a strictly utilitarian addition and, alternatively, that the design is a bad one. As its author, I am naturally unable to discuss the latter proposition, but, with regard to the general question of additions to old buildings, I may, perhaps, be allowed a word or two.

It is easy for societies and individuals to lay down general principles on this subject, but in practice there often arise conditions which cannot be provided for in a general code of rules, however comprehensive it may be. To take an illustration. In the borough in which I reside there exist some fragments of an ancient Cluniac priory, which are now undergoing restoration under the supervision of two prominent architect members of the S.P.A.B., the strict conservatism of whose work is, I am glad to say, tempered with much common sense. They have replaced a defective modern wall of the refectory with a new one in fifteenth-century style, they are replacing modern Victorian window sashes with oak traceries copied from

some fragments that remain in the Prior's Chamber, they propose to lengthen the refectory to its ancient dimensions, and they have restored the twelfth-century doorway with new carved stonework of the old pattern. Though the last-named piece of work may be questioned, the bulk of the restoration described appears to me to be excellent and judicious, although it certainly transgresses the letter of the law as laid down by the Society referred to. I quote this to show that, however conservative an architect's principles may be, he has to use a certain amount of discretion and initiative when he actually gets to work.

The conditions at Norwich are that we have an apse shorn of its central chapel, and therefore mutilated and deformed. A war memorial is wanted in the Cathedral, and this it is proposed is to take the form of a new chapel of the same general dimensions as the original Norman chapel, which dimensions are known. It would be neither desirable nor possible to build a modern chapel in strict imitation of Norman work: in the first place, it would be a forgery; in the second, it would be an unsuccessful one. Therefore, it is proposed to introduce in the new work only such architectural features and details as will not falsify the history of the Cathedral, at the same time keeping to the general lines of the adjacent work.

Possibly, as I have said, the design may be a bad and in-artistic one. Matters of taste cannot be argued. But I can assure your readers of three facts—first, that not a single stone of the ancient Cathedral will be touched under the present proposals, except, of course, where the new walls join the ragged scars left after the destruction of the former Lady Chapel; secondly, that no ancient architectural features will be concealed; and, lastly, that the new chapel will be designed in as quiet a fashion as possible, in order that it may not compete against the surrounding ancient work. It makes no claim either to cleverness or to originality. At the same time, it is hoped that the filling of the gap caused by the destruction of the ancient chapel may remove the present painful impression that an integral feature of the Cathedral has been destroyed and left uncared for.

Olympia Exhibition.

The programme drawn up by the Architects' Welcome Club has been carried out in its entirety. The President, Mr. John W. Simpson, formally opened the Exhibition on Tuesday the 12th. His Inaugural Address is given in full on pages 362 and 363 of the present issue. On Saturday the 12th, the Presidents and Councils of the R.I.B.A., the Society of Architects, and the Architectural Association held a reception of architects and other guests in the Pillar Hall. Public Lectures were delivered by Professor Beresford Pite [*F*.] on "The Effect of Building Materials on Architecture," and by Mr. Raymond Unwin [*F*.] on "Our Towns and Villages, and how we spoil them." These lectures were designed for the stall-holders at the Exhibition and for visitors, to interest them in architecture generally, and attendances at both lectures were very satisfactory. An important and representative exhibition of architectural students' work was held in the large Conference Hall, all the leading Schools being represented, and various prize drawings of the year being shown. The Cinema Show, illustrating sundry building processes and manufactures, proved a very popular feature of the Exhibition. The remaining event, the Public

Dinner in the Pillar Hall, when representatives of the organising bodies, kindred professions, public bodies, the building industry, and Government Departments, are to be the guests of the Club, takes place after the JOURNAL goes to press. As a large number of tickets have been disposed of and numerous guests are expected, the function promises to be a very successful one.

The Annual Dinner, 1921.

As was announced earlier in the Session, it has been decided to revive the Annual Dinners of the Royal Institute, which have been suspended since 1914, and the Dinner will be held this year on Wednesday 11th May 1921, at the Prince's Restaurant. The Council are very desirous that the function should be the occasion of a large and brilliant gathering. A number of distinguished guests are expected, and, following the precedent of 1910, ladies are invited to be of the company. Particulars as to tickets will be communicated to members at an early date.

The New Director-General of Housing.

The Minister of Health, Sir Alfred Mond, has appointed Sir Charles Ruthen, O.B.E. [F.], to act in an honorary capacity as Director-General of Housing. Born at South Shields in 1871, Sir Charles Ruthen, at the age of 15, was articled for four years to Mr. Matthew Hall of that town. On the completion of his articles in 1890 he obtained an appointment under the Council of the Swansea County Borough, and in 1896 started practice on his own account in Swansea. Among his principal works there are the Hotel Cameron; Mond Buildings, headquarters of the Liberal Organisation of the town, erected for Sir Alfred Mond; Pantygydyr Baptist Chapel; the Carlton Theatre and Restaurant; the new Swansea Exchange Buildings (in association with Mr. Ernest G. Allen [F.]), and numerous domestic and commercial buildings in Swansea and South Wales. He has for many years taken a leading part in the public life of the town, and has filled the office of Town Councillor and member of the Swansea Harbour Trust. Housing has always been his especial study; few have pleaded more eloquently for the housing needs of the people. Speaking at the Institute in June 1918, after a reference to the deplorable conditions in South Wales he said: "Fifteen years ago I claimed that it was very much better to pay 1s. in the £ as a rate for a good housing scheme than that much or more for a good workhouse scheme, or for a good lunatic asylum scheme, or through the Imperial Exchequer for a jolly good jail. Surely it is very much better to give the people good homes." In January 1917 he (in conjunction with Sir Leonard Powell) was appointed Inspector "to investigate and report to the War Cabinet upon the use made by Government Departments of their office accommodation"—an honorary appointment. In January 1918 he was appointed Chief Inspector to the War Cabinet and Deputy Controller of Government accommodation for the entire London area. In January 1920 he resigned his appointments, but at the special request of the Government accepted the position of Chief Con-

sulting Inspector of Accommodation—an honorary appointment which he still holds. For his services to the State the O.B.E. was conferred upon him in 1918, and in 1919 he received the honour of knighthood. Sir Charles was elected a Fellow of the Institute in 1918, having qualified from the Licentiate class. He is a Fellow of the Society of Architects, and is now President of that body.

New Architect A.R.A.

At a general assembly of Academicians and Associates held on the 21st inst., Sir John J. Burnet, LL.D. [F.], was elected an Associate of the Royal Academy.

ALLIED SOCIETIES.

South Wales Institute of Architects.

Mr. Henry C. Portsmouth, the new President of the South Wales Institute of Architects, has carried on a considerable practice in Swansea and South Wales for many years. After serving his articles with Messrs. Morris and Stallwood, of Reading, he was engaged, in 1884, to take charge of the Swansea office of a Cardiff firm of architects, and he eventually acquired the Swansea practice. In 1897 he was instructed to visit France to investigate and report upon the Hennebique system of ferro-concrete construction, and upon his return was engaged as architect for the erection of large flour mills and grain silos upon this system. Mr. Portsmouth is architect to the Royal Cambrian Institution for the Deaf and Dumb and the South Wales Institution for the Blind. He is a member of the Council of the Royal Institution of South Wales, and holds the position of Hon. Art Curator. He joined the Society of Architects in 1892, and was elected a Fellow of the Society upon the formation recently of its Fellowship class. His son, Mr. Oliver S. Portsmouth [A.], is associated with him in the practice.

Reading Society of Architects.

At the quarterly meeting of the Reading Society of Architects recently held, 46 architects were present, including the President, Mr. C. Steward Smith [F.], Messrs. A. Cooper [A.] (Slough), A. S. Cox, M.S.A., T. T. Cumming [A.], F. H. Floyd [F.] (Newbury), W. J. Freeman [A.], G. T. Gardner (Oxford), J. H. Goodman, J. R. Greenaway, N. W. Harrison [F.] (Oxford), W. Roland Howell [F.], P. A. Hopkins, M.S.A. (Gerrards Cross), Harry Hutt [A.], C. S. Kimpton [A.] (Sunningdale), H. M. Lewis (Wokingham), E. P. Morgan, W. Galt Millar, W. R. Morris, J. S. Paton, M.S.A., H. Whiteman Rising [F.], Thos. Rayson [A.] (Oxford), R. A. Rix (Burnham), Basil Sutton [A.] (Lambourn), H. W. Smith, M.S.A. (Oxford), G. Berkeley Wills [A.] (Marlow), F. G. Sainsbury, M.S.A., G. H. Williams [A.] (Windsor), F. Woods (Maidenhead), H. E. Watkinson, and C. B. Willcocks [F.] (hon. sec.). After several new members had been elected, Mr. Ian MacAlister, Secretary R.I.B.A., gave an interesting and comprehensive address on the proposed Berks, Bucks and Oxon Architectural Association, in which he pointed out the need for such an Association, and the value it would be to the profession. After considerable discussion, in which the educational and other advantages of the Association were considered, it was unanimously resolved to form such an Association, and a committee was appointed to arrange the necessary details consisting of Messrs. C. Steward Smith, W. R. Howell, H. W. Rising, C. B. Willcocks, Thos. Rayson, G. T. Gardner, N. W. Harrison, H. W. Smith, Basil Sutton, P. A. Hopkins, G. H. Williams, F. H. Floyd, Berkeley Wills, A. Cooper, R. A. Rix, C. S. Kimpton, with Mr. H. Hutt as hon. secretary. In conjunction with the three-counties Association, it is proposed to form several affiliated local architectural societies similar to those already formed at Reading and Oxford, so that all architects in the three counties may be in close touch with the central body.

COMPETITIONS.

Renfrew War Memorial.

Members and Licentiatees must not take part in the above Competition because the Conditions are not in accordance with the published Regulations of the R.I.B.A. for Architectural Competitions.

Rothsay, Queensbury, Wick and Hagley War Memorials.

The Competitions Committee desire to call the attention of Members and Licentiatees to the fact that the Conditions of the above Competitions are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment, and in the meantime Members and Licentiatees are advised to take no part in the Competitions.

COMPETITIONS OPEN.

Qasr el 'Aini Hospital and School, Cairo.

Bengal Council Chamber.

Canadian Battlefields Memorials.

Chauny (Aisne), France: Drainage and Water Supply: Inter-Allied Competition.

The conditions and other documents relating to the above Competitions may be consulted in the Library.

Appointments and Professional Announcements.

The King, on the recommendation of the Home Secretary, has appointed Mr. Digby L. Solomon [A.] to be an additional member of the Royal Commission on Fire Prevention and Fire Brigade Organisation.

Mr. W. R. Davidge [A.], Hon. Secretary of the R.I.B.A. Town Planning Committee, who has been on a mission to India to advise the Government on the town planning and development of Bombay, returned to England on the 11th inst., after an absence of four months. Mr. Davidge has resigned his official appointments in London and has removed his offices to 27 Abingdon Street, Westminster, where he is taking up consulting work.

Mr. F. Milton (Cashmore [A.]) has removed to 15 Waterloo Place, Pall Mall, S.W.1. (Tel. Gerrard 1293.)

MINUTES. XII.

At the Twelfth General Meeting (Ordinary) of the Session 1920-21, held Monday 18th April 1921, at 8 p.m.—Present: Mr. John W. Simpson, *President*, in the Chair; 28 Fellows (including 10 members of the Council), 36 Associates (including 2 members of the Council), 2 Licentiatees, and several visitors—the Minutes of the Meeting held 4th April having been published in the JOURNAL were taken as read and signed as correct.

The following members attending for the first time since their election were formally admitted by the President—viz.: Lionel Crane, *Fellow*; Harry Ernest Wilson and Percy Sidney Dixon, *Associates*.

Mr. Alan E. Munby, M.A. Cantab. [F.], having read a Paper on THE UTILITY OF RESEARCH ON BUILDING MATERIALS, and illustrated it by slides and lantern demonstrations, a discussion ensued, and on the motion of Sir Richard Glazebrook, K.C.B., seconded by Sir E. Ray Lankester, K.C.B., F.R.S., a vote of thanks was passed to him by acclamation.

Mr. Munby having responded, the proceedings closed and the meeting separated at 10.5 p.m.

NOTICES.

Public Lectures on Architecture.

A Series of Six Public Lectures on Architecture (see Major Corlette's letter, *ante*, p. 365) will be given at the Galleries of the Royal Institute of British Architects, 9, Conduit Street, W.1, at 5 p.m., on the following Thursdays:—

April 28th.—Lecturer, Mr. A. Clutton-Brock: "Architecture as Everyone's Concern"; Chairman, Mr. John W. Simpson, President.

May 5th.—Lecturer, Mr. F. C. Eden, M.A.: "Architecture and Travel"; Chairman, Sir Aston Webb, K.C.V.O., C.B., P.R.A.

May 19th.—Lecturer, Mr. Roger E. Fry: "Architectural Heresies of a Painter."

May 25th.—Lecturer, Sir Charles Nicholson, Bart., M.A.: "Post-War Churches."

June 2nd.—Lecturer, Mr. Henry M. Fletcher, M.A.: "Building a House"; Chairman, Mr. Ernest Newton, R.A.

June 9th.—Lecturer, Mr. H. S. Goodhart-Rendel: "Some Fashions in Architecture."—Admission free.

Annual General Meeting, 2nd May 1921.

The ANNUAL GENERAL MEETING will be held Monday, 2nd May 1921, at 8 p.m., for the following purposes:—

To read the Minutes of the Meeting held 18th April; formally to admit members attending for the first time since their election; to announce the names of candidates recommended for election.

To elect HIS ROYAL HIGHNESS THE PRINCE OF WALES, K.G., as HONORARY FELLOW.

To receive the Annual Report of the Council for the official year 1920-21, printed on preceding pages of this issue—copies of the Report will be available to members at the Meeting.

To nominate candidates (1 Fellow and 1 Associate) for the office of Hon. Auditors for the ensuing year.

To receive the List of Attendances at the meetings of the Council and Standing Committees during the Session.

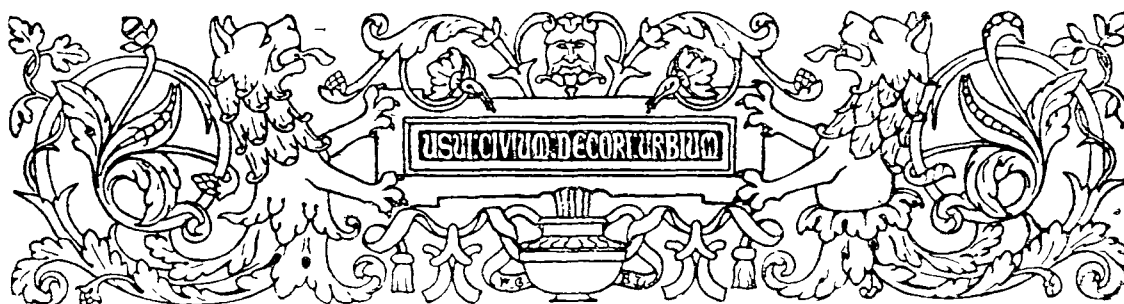
APPLICATIONS are invited for the appointment of Assistant Architect in the Architectural Department, Durham County Council, preference being given to applicants with professional qualifications and aptitude for design or a high order. Salary £425 per annum, rising by annual increments of £25 to a maximum of £500 per annum, with bonus in addition, which fluctuates with the cost of living—present rate of bonus £29 per annum on a salary of £425. Previous experience and qualifications considered in fixing commencing salary. For particulars of appointment and form of application, apply, enclosing stamped addressed foolscap envelope, to the County Education Architect, 34, Old Elvet, Durham. Last day for receiving applications, 2nd May 1921.

A SECOND ASSISTANT (A.R.I.B.A.) wanted by Messrs. Leslie Johnson and Morris, of Shanghai. Three years' agreement. Age 24-28, single, London training preferred. Capable of getting out attractive coloured sketch plans, perspectives, and working drawings. Salary at present exchange would be about £500 a year. First-class return passage. Address Mr. J. R. Maughan, 64 Windsor Terrace, South Gosforth, Newcastle-on-Tyne.

APPOINTMENT AT HANKOW.—Fully qualified and experienced Architect's Assistant wanted for Hankow. Work will consist of design of semi-public buildings, office blocks, residential flats, etc. Fertility and speed in detail essential. A.R.I.B.A. preferred, not more than 40 years of age, of good general health. Good address essential. Engagement for three years in the first place. For full particulars apply to Mr. Cyril A. Farey, 72 Golders Manor Drive, Golders Green, N.W.11.

TO LET, well-lit ground or first floor offices, Queen Square, W.C. Apply Box 194, Secretary R.I.B.A., 9 Conduit Street, W.

OFFICES TO LET, Bloomsbury.—One or two good-sized North-lighted rooms, each with store cupboard, central heating, electric lighting and cleaning. £65 per room, inclusive. Box 1941, Secretary R.I.B.A., 9 Conduit Street, W.



THE UTILITY OF RESEARCH ON BUILDING MATERIALS.

By ALAN E. MUNBY, M.A. Cantab. [*F.*].

Read before the Royal Institute of British Architects, Monday, 18th April 1921.

THOUGH the subject of my Paper is, I think, the outcome of suggestions made by our Science Standing Committee, the title is not of my choosing, and as I am not quite sure whether it carries a note of interrogation or whether, the utility of research being agreed, I am merely expected to elaborate the subject, it is perhaps necessary to begin by discussing what part and lot, in a present-day practice, the architect has in dealing with materials from a scientific aspect.

Undoubtedly the chief attribute of an architect is the power to create buildings clothed with monumental dignity or gracious charm which shall uplift the beholder and help to quicken his artistic senses, which in these modern times have such sparse opportunities for development. Every one will concede this, and even the most soulless designer cherishes the hope that his elevations may meet with commendation. It is undoubtedly because of this universal acceptance of the essential characteristics of an architect that the leaders of the profession are, rightly, the great artists. They have, however, as leaders, a trust to discharge to the profession in all its aspects, and there is probably no calling which covers so wide a field, for an architect is expected to be equally ready to test a drain as to design an altar cloth or to arrange for the installation of electrical plant as to create a monumental façade. It is not to be supposed that ability in all these diverse spheres can be equally developed in one individual: many of them are, if not antagonistic, at least somewhat incompatible with temperaments usually specially developed in some particular direction. Nevertheless, as we are constituted we do accept responsibilities covering these wide fields, and though a kind Providence seems to keep the feet of many to certain paths best suited to their capacities we must, in the nature of things, all involve ourselves in responsibilities for materials in the creation of structures, not mere products of the drawing board but, in all but a few cases, utilitarian realities for human occupation.

It may be said that technical matters should be left to pure technicians, the architect confining himself to questions of planning and design. Such a decision could not be lightly made, and could certainly not be fairly made for the profession by those whose work lies mainly in a purely artistic sphere, for however much we cherish art it would be found on analysis that by far the greater proportion of the livelihood of architects is derived from things in which artistic work has only a very small part. But assuming it were proposed to effect a wholesale sacrifice of the mundane aspects of our craft on the altar of our goddess and to leave work not calling for special artistic skill to others, would her influence be thereby increased? Would not rather a thousand opportunities be lost for giving to otherwise uncouth structures some touch of grace and proportion, and would not the world be soon filled with monstrosities so numerous as to overwhelm those who had spurned the technicalities of their calling? These, however, are little better than idle thoughts for we *do* accept technical responsibilities of all kinds as part of our professional work, and at the last ditch it is the architect, and no one else, who is responsible for his building and everything the contractor puts into it. He

may safeguard himself by reserving means for personal redress against some party concerned, but the final liability is his.

We are apt to live too much in the past. Even a century ago building was a comparatively simple matter, and but few materials comprised the stock-in-trade of the constructor. Brick, stone, timber, slates, and tiles considered, little was left to worry the architect, and even these materials often had a local origin and their qualities were well known and obvious from surrounding instances of their use. Time, again, was less valuable; brick earths could be well seasoned; timber was cheap enough to admit of the removal of its less desirable exterior portions: the contractor was always a builder, and often an actual craftsman, who not only had a local reputation to maintain but who was sufficiently interested in his trade and had a sufficiency of time to enable him to do good work more or less spontaneously. It might well have been contended then that in those times such a paper as this should deserve no hearers, but we actually find instances of our great architects of that period taking an active interest in practical science, parallels to which it would be difficult to discover to-day. I have to thank Sir Arthur Shipley, in a most interesting historical note he has recently written, for a reminder of two examples. One, that of Leonardo da Vinci, not only a great artist but a man of science, who had a combination of studio and laboratory for his work; the other, Sir Christopher Wren, who in 1659 was one of the first pupils of Peter Sthael brought to Oxford by Sir Robert Boyle. Sthael is described as "a Lutheran, a great hater of women, and a very useful man," and his laboratory was one of the earliest in this country. Surely if any excuse were needed for pressing the claims of research we have it in this very early and classic example of Wren at the laboratory bench. Wren, as we know, may be regarded as one of the founders of the Royal Society, and was Professor of Astronomy at Oxford in 1661. It would appear, then, that science and art were at least not incompatible in this famous personality.

If Wren thought researches into the realm of science desirable in 1659, what of the modern architect of to-day? A mere list of the materials he handles would have left our great predecessor dumb with astonishment. Subtle powders such as cements, which may have any composition; clay products rapidly manufactured by machinery, aggregates of diverse family history, timber from unknown sources, metals varying enormously in properties with minute differences in composition, paints ready mixed and beyond hope of lay investigation, a host of patent materials, floorings, partitions, roof coverings, and builders' sundries daily flooding the market and with one voice claiming to be all things to all men. This does not end the tale, for many of these specific things before they come under the architect's eye, are woven into the engineering complications of a modern building in association with transportation, warming, lighting, power, and other services which form so large a part of most building contracts.

But the claims of science and research to be sustained must be reasonable and subservient to the main objects of architecture. It has been well said that we should know our limitations and not attempt to excel in fields outside our own sphere. The architect cannot be expected to be also a mathematician, physicist, chemist and geologist, and were he foolish enough to aspire to play a rôle so multifarious he would find himself accepting responsibilities out of all proportion to the duties of an individual professional man to his client. As an example, he could not possibly undertake to supervise in detail the chemical analyses of his materials nor physical tests upon them, nor could he put himself in the position of legal liability, touching the exact properties of his materials as laid down by laboratory standards. It is probably the fear of such demands as these which has in some measure delayed the development of research in materials as applied to building, for it must always be remembered that work in a particular sphere will only expand and prosper if it receives adequate appreciation and encouragement from those for whose benefit it is intended.

What, then, should be an architect's relation towards science? I hold that it should be this, that he should have a sufficient general knowledge of science, obtained during his early education and

developed in a manner showing its applications during his student career, to enable him to appreciate its value and understand, direct, and control, in a broad sense, the work of scientific experts whose assistance he may require to insure the best use of the best materials in his buildings. Without some knowledge and appreciation of natural science it is manifestly unreasonable to expect any belief in the utility of research on building materials, since we must look to science for these researches; hence I hope that these reflections on science generally may not be regarded as a digression from my subject. I am much tempted to abuse the privilege of addressing you and to embark upon educational themes relative to science in the service of architecture, but I resist in the hope that if research is agreed to be useful the necessity for knowledge to appreciate it will some day be the subject of a careful review by those responsible for directing architectural education.

But let us leave academic discussions and, before referring to specific instances of useful research, endeavour to briefly focus the problem.

After mining, the building industry is probably the largest in this country. The operatives directly employed cover very wide fields, while those engaged in the production and manufacture of materials used in building must be much more numerous. I have to thank the Ministry of Health, the Board of Trade and the editor of *The Builder* for help in obtaining the following statistics. Some 750,000 operatives are employed in the building trade, and, on the assumption that 80 per cent. are on full work at one time as an average, this represents a wage bill of about £3,000,000 a year, apart from the consideration of other contractors' costs. As regards materials, the annual production of building bricks is about three thousand millions, which, taken at the present price of London stocks, represents £15,000,000. One hundred million tiles are made annually, worth possibly £800,000. The production of cement is at present 2,250,000 tons, worth some £10,100,000. Some 200,000 to 240,000 tons of slates are mined annually, worth some £7,000,000. The value of imported timber, excluding pit props, sleepers and staves, has been given to me at no less than £66,750,000. In 1907, the date of the last figures available, the home consumption of paint materials exceeded £10,250,000, which, I am told, probably means £30,000,000 to-day. I have been unable to dissect constructional steel, but last year nine million tons of steel ingots and unmanufactured castings were produced in this country. The aggregate value of other materials—*e.g.*, marble, nearly £500,000, lead, zinc, brass, glass and other minor materials—must be considerable, but omitting these and steel we have an annual value of some £130,000,000, or a sum well over half our pre-War national revenue. These are figures for materials only; but when we reflect that a labourer's wages are almost four times and a skilled worker's wages nearly three times pre-War cost, and regard the resulting prohibitive price of building which is threatening the whole industry, the value of any investigations likely to improve the durability of our materials and add to our knowledge of their most appropriate employment seems obvious. It may be argued that this country has done very well in the past without organised research and that under the stress of competition those marketing building materials may well be left to their own devices and assumed to be producing the best possible goods in the most economical way. Were natural science recognised in this country as abroad this contention might be worth debating, but so few of our manufacturers have any real training in science that the possibilities of research are by no means widely appreciated, and only in the last few years has organised research applied to technical matters been considered. At the present time in Germany four new separate institutions for research are said to be projected, while in America three large trading concerns alone spend together about a quarter of a million annually and employ six to seven hundred people in such institutions. The Bureaux of Mines, Agriculture and Standards are national centres for research, while the investigations of such bodies as the Smithsonian and Carnegie Institutions have a world-wide reputation. Though technical research here is still in its early stages, no country has produced individual men of science superior to our own; and in speaking of research generally, a tribute should be paid to many who have carried out fundamental investigations and especially to the splendid work of the National Physical Laboratory, organised and for two decades

directed by Sir Richard Glazebrook. This Institution, as also the Geological Survey and Museum, have recently come under the control of the Industrial Research Department, responsible for encouraging and co-ordinating research in this country, and under it a Board of Building Research has just been formed ; but funds for such work are generally very inadequate and are likely to remain so until public opinion alters the situation, and as far as building is concerned I submit that it is this Institute which should lead such opinion. Before the War America had some 20,000 university students, Germany half, and Britain but a quarter this number, which means that if we are to compete with other nations we must give these students, who provide most of our public men and potential scientists, a very definite interest in the problems which require solution. It may be argued that at the present time economy is so essential that funds are not available for research, but such an argument can only appeal to those unable to distinguish between economy and parsimony, and the necessity for economy is really a strong argument for research. Putting the annual cost of building materials in this country at as little as £100,000,000, an improvement in materials averaging only 5 per cent, would leave a very handsome margin of profit—apart from additional peace of mind to architects—after deducting a few hundred thousands a year for interest on capital and current expenses which the requisite investigations would involve.

A research problem generally has two ends, and these often belong to different professional or commercial spheres. Hence, in many cases much advantage would result by collaboration. As an example, many defects in materials arise from injurious atmospheric influences, and an attack should be made simultaneously on improvement of materials to resist such influences and on the reduction of the impurities in the air which are deleterious. Obviously co-operation between these two sets of workers would be valuable, as the possible improvements on either side must necessarily be closely related.

The utility of research is well exemplified by the extraordinary improvement in certain materials, the result of rigid demands by engineers. Steel, which can now be obtained of uniformly high quality suitable for a great variety of purposes by making very trifling but all important changes in composition, is an obvious instance. Cement, which we can now so comfortably specify as having to conform to the British Standard Specification, is another striking example. The high and certain qualities obtainable in these materials is the result of patient research stimulated by demand. If we could purchase our materials on the basis of the essential qualities we wish them to possess, stimulus to improvement would be vastly increased. Suppose, for example, that we bought cement by strength and paint by durability, instead of by the more primitive standard of weight, in which we are not the least interested, and which attribute is indeed an incumbrance, how much material of poor quality which masquerades as "best" would disappear from the market, and how the best would improve merely for commercial gain. Such form of purchase may not at present be practicable in many cases, but we should keep this point of view in front of us.

It is to be feared that our supineness on certain small matters which could easily be rectified by more rigid demands often leads to troubles quite disproportionate to their initial causes. May I cite one instance? We are constantly troubled with cases of dry-rot in timber, and in those which have come under my notice quite half are due to defective rainwater pipes. Now, the ordinary rainwater pipe is so cast that it is usually thinner at the back than in front, hence its vulnerable unpainted side readily perishes and the pipe leaks against the wall, the defect being often undiscovered until some dormant spores wakened into life by moisture begin their ravages upon the ends of joists or other internal timber. Were these pipes more rigidly specified the immediate result would no doubt be trouble, delay, and increased cost, but this might be got over by giving notice in advance of an R.I.B.A. standard to be required, and very soon defective goods would be ruled out of reputable work with great national saving.

It is quite impossible on the present occasion to attempt any comprehensive outline of suggestions for specific researches likely to be valuable to architects, the building trade, and building

owners; but, lest I be accused of advancing mere vague generalisations, I feel I must mention a few, well knowing that there are many in this room much more competent to formulate such a list than myself. There is a great deal of work to be done on building limes, which are capable of improvement and are in every way suitable for much work in place of Portland cement with considerable economy. I have recently obtained from Washington a small Government publication showing how vastly in advance of ourselves the Americans are in the use of these materials, and how much an organised research in this industry, which seems to have had little attention from our scientists, is wanted.

LIME.

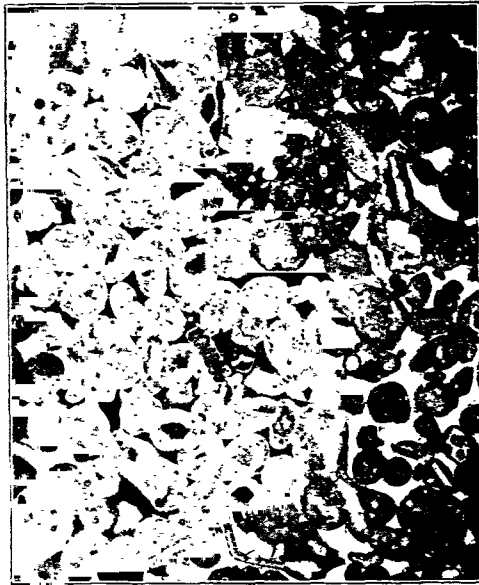
Before the days of Portland cement all our buildings were erected in lime mortar. The area of the top of the 18-inch brick cone to the dome of St. Paul's is about 150 square feet, and this sustains the cupola, weighing 700 tons; hence the lime mortar joints must be carrying more than 4 tons per square foot, a weight which we should hesitate to place on many walls of modern brickwork. Cement is scientifically manufactured, and made to conform to definite and rigid specifications. The lime industry, on the other hand, is much as it was a hundred years ago. Lime is an inconvenient material to store and handle, and probably with improvement and increased demand could be much cheaper; but in America, where the lime industry has made enormous developments in the last twenty years, the burnt stone is hydrated and marketed as a dry hydrated screened powder, which keeps fairly well, does not expand or fire, and carries as much sand in mortar as the unhydrated lump material. At the present time, on actual material only, about £1 a rod for equal condition of transport can be saved by the use of lime in place of cement in brickwork. More important, however, is (or ought to be) the saving in wages in building in lime, as a man can work with it much more rapidly. A bricklayer of 50 years' experience recently questioned put the saving in labour at one-third.

The methods of improving our weaker limes are becoming forgotten. In 1856 a patent was taken out for Scott's Cement, formed by the mere addition of a little gypsum to stone lime. Tests are available showing that the strength of mortar can be thereby more than doubled. Street used such mortar in 1878 in building the Law Courts, but I have not found anyone conversant with this material at the present day.

STONE.

Public interest has been lately much aroused on the question of the decay of stone in our national buildings. Our Science Committee have had this subject in hand, and, thanks to the generous co-operation of H.M. Geological Survey, the results of a ten years' exposure test on a number of common building stones are now under consideration.

The disintegrating influences which affect stone in buildings give rise to great expense and trouble, and the remedies employed are by no means always satisfactory. Most freestones take a skin hardness after quarrying, due possibly to the deposition of solid bodies near the surface on the evaporation of the "quarry sap." This skin once removed never seems capable of replacement, and there is always a danger, in applying solutions or chemicals which result in precipitation, of obtaining a skin which by further disintegration becomes detached from the stone, leaving it worse than before. I fear we shall be told that much of our architectural ornament in stone involves the use of material in a manner which can only lead to decay through lodgement of dirt and moisture even in a comparatively innocuous atmosphere. Probably the physical characters of stone are more important than chemical differences in composition. Bath and Portland stone are very similar chemically, and are both oolitic, and it may be left to the mineralogist and crystallographer to explain the great difference in their weathering properties. Again, compactness is no criterion of durability: for example, Ketton stone, with its large, rounded grains, weathers in town atmospheres better than some stones more dense in character. The durability of a stone often depends much more on the character of a small percentage of cementing material than on that of its main ingredients. Scientists have yet



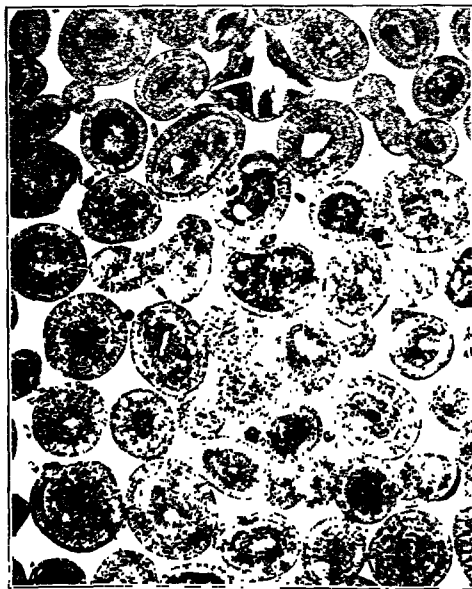
LIMESTONE (PORTLAND WAYCROFT).

Opaque oolitic grains of medium size, mostly without well-marked structure. Most of the clear patches are masses of cry-stalline calcite.



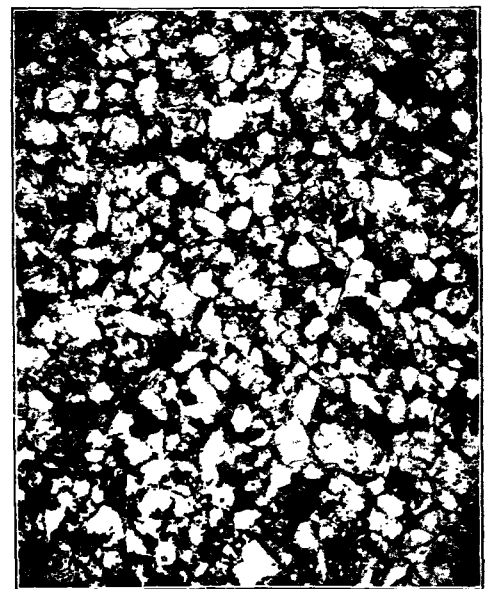
LIMESTONE (BEER).

Mainly composed of corroded fragments of echinoderms in a matrix of cry-pto-cry-stalline calcite. The clear round forms are foraminifera.



LIMESTONE (KETTON)

A very perfect example of oolitic structure, showing both simple and compound grains, with both radial and concentric structure. Matrix is clear cry-stalline calcite, with crystals developed on a large scale, so that many of the individual grains are enveloped in a single crystal of the matrix.



SANDSTONE (CRAIGLEITH).

Sandstone with a considerable amount of felspathic material.

Slides shown reproduced (to a reduced scale) from the Album of ENLARGED PHOTOGRAPHS OF BUILDING STONES, arranged by the Science Committee R.I.B.A. (March 1911). The magnification is about 20 diameters.

told us little about the real meaning of adhesion and cohesion, and we seem a long way from any standards by which to measure these important properties.

BRICKS AND TILES.

We are all conversant with the disastrous defects which often occur only after some years in roofing tiles. This subject again our Science Committee has been endeavouring to tackle, and has collected a number of defective samples, thanks largely to the assistance of Mr. Greville Montgomery. A careful report is wanted on the conditions of manufacture and an investigation into the subject of shelling, lamination, and the effect of slope angles, and climatic conditions. Why should the old tiles last 150 years, while many modern ones are hardly able to stand a single decade?

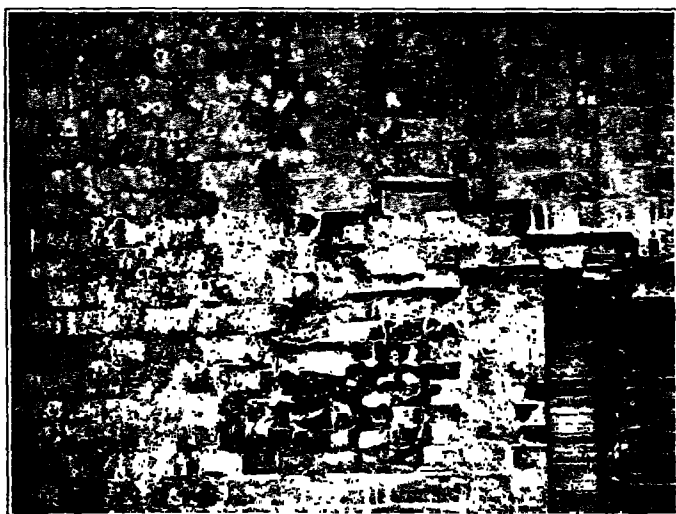
The wonderful condition of certain old tiles after a century of wind and weather is ascribed by some to the mellowing of the clay before use. This mellowing can only mean disintegration and chemical changes, including the removal by solution of undesirable ingredients, and there seems no reason why the chemist should not seriously take up this subject with a view to removing the loss and embarrassments resulting from defects in composition. As regards pressed tiles it must be remembered that almost any substance tends to laminate under pressure: even such a homogeneous material as wax will show this effect. It would be interesting to discover whether any relation exists between durability and plasticity, a property much influenced by hydrated oxide of iron and carbonaceous matter as well as by the amount of true clay substance—kaolin. Bricks used in such vast quantities require more attention as regards impurities such as appreciable fragments of lime and objectionable soluble sulphates. The danger of lime in bricks and tiles, of course, arises from the great expansion resulting in the presence of moisture. When in minute fragments the porosity of the material is usually sufficient to admit of this expansion, but when lime is present in pieces of appreciable size cracking or bursting must result. Lime cartridges, indeed, were used before the days of gunpowder for blasting. Fortunately lime is very easily detected.

The “salting” of bricks again, due largely to sulphate of soda, often has disastrous effects on decorative work, and this efflorescent material may be formed by faulty firing and bad coal even if absent in the original clay.

TIMBER.

Timber in its converted condition is a material upon which many researches are urgently needed. Most of our other materials are of mineral origin and their decay is due to oxidation or other chemical reactions which limit the field to the work of the chemist, physicist and mineralogist. Here, however, we have an organic edible substance open to the ravages of insects and fungoid growths. We are all conversant with the defects produced by boring beetles or worm, though the work of these industrious insects is often neglected. Many of our fine old roofs and much hidden structural timber falls a prey to these creatures, and we are all much indebted to the researches of Sir Frank Baines in the extermination of beetle at Westminster Hall and for his rendering this experience generally available. Dr. Gahan, of the Natural History Museum, has recently issued a valuable pamphlet on the various kinds of beetle and their habits, but there is much yet to learn. More dire and urgent is the terrible scourge of dry-rot caused by the fungus *Merulius*, which almost amounts to a national plague, much accentuated since the war as the result of the use of sappy and unseasoned timber and the inevitable neglect of property which has often allowed deterioration to extend so far that insufficient protection from weather has resulted. What the annual cost of this pest is it would be unwise to hazard, but as a mere unit among our many brethren I have seen probably a dozen cases involving repairs amounting to many thousands of pounds in the last twelve months. Yet we have not a single recent comprehensive volume on the subject in this country and but few workers, and these mostly engaged also on other duties. The mycologist has little regard for the practical side of this problem, while the architect considers it too botanical for his sphere of action, and as far as I am aware our students are taught

little or nothing about it. Meanwhile the country suffers while no effort is made to stamp out infection at its source. Much might be done to check the evil by insisting upon more sanitary conditions at the docks and in our timber yards, where infected wood is often treated with no more care than brick rubbish and, indeed, is sometimes used as a convenient substratum in which to place sound timber. Our Science Committee is making what will, I hope, prove a valuable investigation into the storage conditions of timber, and after the submission of its report to the Council it is to be hoped that, if this course seem justified, this Institute will press for legislation to improve and control conditions of timber storage. Meanwhile we want an organised body of whole-time workers prosecuting researches into the entire subject of diseases in converted timber, and probably few national investments would pay better. At the instance of the Science Committee the Council brought this subject to the notice of the



DETAIL OF DRY ROT MERULIUS IN FRUITING STAGE
(The fungus has penetrated a brick wall 3 ft. 6 in. thick.)

Industrial Research Department a very short time after the formation of this body. This should be regarded as a national problem and should not be relegated to trade associations interested in producing some protected specific or even to State-aided private workers. In dealing with a material the total annual value of which is over 80 millions, it would not seem unreasonable to ask for a quarter of a million to provide and endow a suitable institute. We want first a ready means for detecting spores of *Merulius* and *Polyporus*, an investigation into distribution of the disease, which is known to be specially prevalent in certain districts, and then the consideration of regulations which shall bring this infection under control. Is there any real reason why this disease should not be virtually

stamped out, and could not this be effected by the Board of Agriculture and the Board of Trade when the mycologists have told us more? The other end of the disease problem is the production of timber so treated and seasoned that it will better resist decay.

There are, of course, a great many other aspects of timber which merit investigation. Many woods grown in our Empire overseas are little known and merit exploitation. The Imperial Institute Advisory Committee on Timber, under the chairmanship of one of our Fellows, is doing excellent work in this direction, and I have to thank Dr. Chandler of this Committee for preparing some specimens of Nigerian and British Columbian timbers which are shown here this evening. At present it would appear that freight costs are against many of these timbers, but it would seem desirable to give them some form of preferential treatment, more especially as the Russian market appears likely to be uncertain for a considerable period.

METALS.

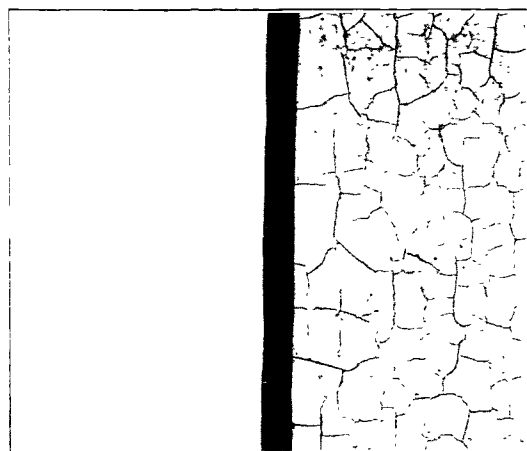
In the decay of metals atmospheric impurities play an important part, but moisture and carbonic acid, which must be regarded as normal constituents, are responsible for decay apart from aggravating additions such as sulphuric acid found in most town airs. Attention has recently been directed to the preventive or inhibiting action of certain substances as, for example, lime protecting iron in concrete. Again, we have now certain steels which resist corrosion owing to the presence of small quantities of vanadium. Most commercial metals are really alloys and a great deal has yet to be learnt on the composition of alloys relative to resistance to corrosion. The discovery of a metal strong enough for structural work and

cheap enough for use which will resist atmospheric corrosion and therefore will not require the services of the painter does not seem an impossibility, and such a discovery would be worth many years of well-paid research work. Even if an alloy research failed some skin treatment at the time of manufacture might prove effective. I have here an ingot of copper clothed permanently with that beautiful red oxide temporarily produced on clean copper by a London fog. This has had quite a chequered career in my possession for 30 years, but its surface remains clean as it came from the mould. The decay of zinc is really a very serious matter for owners of small town property and probably depends in a great measure on impurities in the metal. There is no special difficulty in preparing pure zinc, nor should it, I think, be prohibitive in cost. It would be a comparatively simple matter to produce cost and durability statistics for various qualities of this metal.

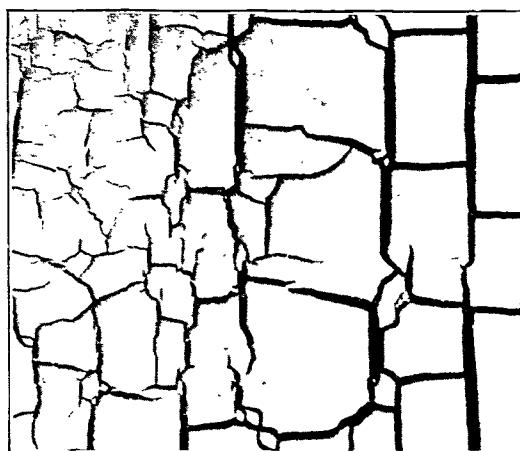
We are looking forward to information in the discussion about the activities of the Industrial Research Department's Building Board, but I should like to mention one investigation initiated by the late Research Committee of this Institute and brought to fruition by the great assistance of the Institute of Metals, and the financial support of trade associations and the department just referred to. This is a research, at a cost of some £800 a year, on atmospheric corrosion of non-ferrous metals such as brass and gunmetal fittings so largely used in buildings. This work has only been going on for a few months, but results as obtained will be made generally available.

PAINTS.

Paints and varnishes, perhaps the most difficult of materials to assess, need more experimental work. For example, experiments made some years ago in America showed that in two similar paints the size of the solid particles were respectively 125 and 2,500 to the linear inch, and that the latter had twice the durability of the former. Oxide of iron paint in oil varies in price more than 50 per cent, according to quality, but very slender means exist for ensuring that we get the best when we demand it.



The clear portion of slide is good white lead paint :
the crazed has too little binding oil.



Resin, linseed and wood oil; cracks produced by
too much resin

The solid body matter in a paint possibly bears some resemblance to the aggregate in a concrete, the oil acting as a vehicle and binding material, and if we want our paints to resist weather it does not seem unreasonable to use our experience of concrete as an analogy. It has been proved that aggregates to resist moisture must be composed of particles of varied size, and it seems not unlikely that this would prove true of paint bases. Moreover, varied size in aggregate particles makes for greater strength. A thin elastic film of dried oil may not be comparable with crystallised lime, but there are some who hold that even the setting of cement is entirely due to colloidal or glue-like bodies.

The different materials used in the paint trade, including the vast number of pigments, do not number much less than a thousand. Among the 150 pigments in common use about 17 per cent. are liable to fade, and this is a subject worthy of investigation. The nature of the gums and resins, a most difficult subject, is yet imperfectly understood, and varnishes which are made from these resins are open to much adulteration. The recent use of substances of vegetable origin dissolved in organic liquids—for example, the so-called cellulose acetate—suggests that our organic chemists might help in finding substitutes for some of the very costly varnishes now used in first-class work.

Though painting may be a very small matter in an initial building contract, its periodical repetition makes the material really important. It has been recently estimated that the black smoke of Manchester costs this city annually three-quarters of a million, and much of this cost must be due to paint renewals.

GLASS.

Our Research Committee started an investigation on the improvement of pavement lights, and, through the kindness of an optical expert, and the makers, samples of a new glass have been exposed in a London pavement for three years. The results of this experiment do not promise to be satisfactory, but it should really now be possible to produce a transparent medium able to resist abrasion which would result in great improvement to much basement property.

These are but a few of the problems which deserve attention, but many others suggest themselves, as, for example, proprietary plastic floor and wall coverings, which should at least be guaranteed not to contain certain injurious ingredients. Again, such subjects as the acoustics of buildings, to which study a special institute is devoted in America and, I believe, also in Germany, though strictly outside the scope of this paper, demand much elucidation.

In conclusion I will now show a few slides got together by the kindness of friends interested, and one or two simple lantern experiments.* These are not intended to illustrate researches as much as to show how the minute probings of science can help us in our diverse and often difficult duties.

I cannot hope that my very inadequate plea for research has to-night made many converts, but would rather assume that the matter does not admit of controversy. If this is agreed, then I regard it as the duty of this Institute, with the most necessary and valuable support of the building trade, to take steps to get into closer touch with our great men of science and with departmental and other bodies which have funds at their disposal for this work.

* The lantern illustrations included the demonstration tanks, showing the effects of immersion in a solution of sulphuric acid of pieces of sandstone and limestone, and colour tests to distinguish pieces of silica and lime from brick. Demonstrations by the same medium showing: (1) the formation, in an orderly arrangement, of crystals of metallic lead from solution by electrolysis, and (2) the slow and rapid solution of zinc in acid to illustrate the life of pure and impure zinc in zinc flats in towns. Slides of greatly magnified sections of tiles prepared by Mr. H. W. Burrows [L.C.] illustrated the lasting nature of the old hand-made tiles compared with those of modern machine manufacture. A red roofing tile believed to be Roman, taken from a fifteenth-

century building in Suffolk, is still in good condition; others 70, 150, 200 years old are in excellent condition, while machine-made tiles, specimens of which were exhibited, had weathered so badly that the roots from which they were taken had to be renewed after a decade or so. There were also exhibited slides of some of the building stones which the Geological Survey, in conjunction with the R.I.B.A. Science Committee, have had exposed in London for ten years, their condition both at the beginning and end of this period being shown. Slides showing specimens of iron and wood covered by paint and varnish prepared from panels lent by Messrs. Mander Bros. were also exhibited.

DISCUSSION ON THE FOREGOING PAPER.

The President, Mr. JOHN W. SIMPSON, in the Chair.

Sir RICHARD GLAZEBROOK, K.C.B., D.Sc., F.R.S., late Director of the National Physical Laboratory: I rise with great pleasure to propose a vote of thanks to Mr. Munby. He has just said that he has laid before us a very inadequate plea for the use or utility of science as applied to building construction and building work. While one agreed with most of his Paper, I think everyone in this room will dissent from those last words. (Hear, hear.) The plea which he has put forward for further research and investigation in connection with building materials is one that it is impossible to resist; at the same time it is one which it is difficult to add to. He has stated the case with extreme clearness and fulness: he has called our attention to the vast importance of the industry, to the large sums of money with which it is concerned: and he has indicated, in various ways, the manner in which science has hitherto helped, to some extent, in connection with this industry, and he has pointed out directions in which science may help in the future. The plea seemed to me to be far from inadequate: it seemed to be very strong and forcible, and I trust that, if it was necessary to make converts in this room, he has converted the whole audience to his way of thinking, and that this meeting may prove to be the commencement of a period in which scientific men do aid the building industry to a larger extent than has, perhaps, been the case in the past. Mr. Munby has been good enough to refer to such work as I was able to do during my twenty years' tenure of the office of Director of the National Physical Laboratory. During that time it was my business to aid, in any way that I could, the application of science and scientific knowledge to industries of all kinds, in which the building industry was not by any means neglected, though it was not one with which we were brought most intimately into contact. I do not know that I can enforce what Mr. Munby told you better than by referring, very briefly, to a few cases in which investigations bearing on matters of interest to the building industry did take place, and led, I hope, to some results of more or less importance. And the matter is of the more importance at present, when so much of the work of the architect is necessarily that of the engineer and constructor. The methods that have to be adopted in the construction of our buildings at present differ, I think, entirely from those which could be used by our forefathers. The fact that you utilise, to the extent you do, steel, and materials of that kind, and—perhaps most difficult of all—reinforced concrete in its various forms; the fact that the buildings are so much greater than most of those of old days, these facts have all produced special difficulties and have raised questions that involved very careful and delicate investigation. So in the early stages of the Laboratory one of the matters brought

most prominently before us was the necessity for being able to test building materials on quite a large scale; to test large beams, ferro-concrete beams in some cases, or pillars of the actual sizes that were used in engineering practice. As a matter of fact, for various reasons, in early days that proved impossible. There were difficulties of various kinds, and the expense of it and the cost of the machinery needed was outside anything that could be then afforded. But some few years ago the question became more urgent, and Sir John Cowan, representative of Redpath, Brown & Co., pointed out the extreme necessity for further research in ferro-concrete work: and by his generosity a machine was planned which was to carry out tests of ferro-concrete beams and other work of that kind. As a matter of fact, the war came before the machine was erected, and the whole matter has been delayed in consequence: and I am not sure that it is in a complete state for full-scale work at the present moment. But it will be so before very long, and the difficult work required on ferro-concrete will be able to be carried on at the Laboratory, thanks to the generosity and the far-sightedness of Sir John Cowan and his fellow-directors. And that leads us to consider one or two other problems connected with ferro-concrete. I have in my hand a paper, which was sent to me recently from America, dealing with the effects of stray-current electrolysis in various materials, building materials among them, and especially concrete work. It is by one of the Staff of the Bureau of Standards of Washington. The paper contains results of experiments such as Mr. Munby has referred to. The danger to building materials from electricity is not, perhaps, a very great one, the actual voltages which occur are not such as to often do much damage. But they may do harm, and I have here some figures showing the kind of action which takes place in certain cases, and the damage which is actually done. The first figure refers to a block of concrete with iron in it: the current has been passing through the concrete and iron, and the result has been to split the block. What happens there is that, as the current passes into the concrete, chemical action takes place, and the concrete swells, and if the action is great enough, it may be enough to burst it. There are other matters connected with ferro-concrete which have been investigated in America, and which need further research here, I think; though, as I have said, it would appear that the strength of the leakage currents is not such as to be really a very serious source of danger to us here in England.

Another question which we have investigated at some length deals with the thermal properties of materials used in buildings: the rate at which heat passes through these various materials, and the best method of maintaining the temperature in the house

or other building. Some time ago we made, at the request of some contractors in the first instance, I think, some tests of the various roofing materials which have come in: materials which are made of some kind of cement or plaster, with embedded fibrous material worked into the form of tiles. It was supposed they would be particularly good for maintaining the temperature of a room, that is, that they would be bad transmitters of heat. But, very much to our surprise, when the experiment was tried it was found that ordinary galvanised iron was very much better—quite 20 per cent. better—than any of these materials, so far as allowing the transmission of heat from the inside to the outside of the building was concerned. The fact is that, although the passage of the heat through the iron was more easy than the passage of heat through the fibrous material, the rate at which the heat escaped from the outer surface of the iron was so much less than that at which it escaped from the outer surface of these tiles that the iron had a 20 per cent. advantage. A number of experiments have been carried on recently at the request of one of the Boards of the Research Department, the Food Investigation Board, on questions relating to the thermal conductivity of materials which are used in cold storage work. A very large number of materials are used in cold storage work, and an elaborate investigation has been made as to the rate at which heat will pass through these materials. Dr. Griffiths, who has been doing the work, has sent me a few figures. As a matter of fact it appears that there is not a very marked difference between the various materials. It was a case of measuring the rate at which heat passed through—in British thermal units—per hour per square foot of surface one inch thick. Cork, slagwool, and charcoal allow the passage of .33, .31, .29 units, and so on. Diatomaceous brick earth, which is much used, allows the passage of .5 to .6 unit, cement 1 unit, and bitumen 6 units, concrete block 8 units. So that while only one-third of a thermal unit will pass through one inch of cork slab, 8 of them will, in the same time, pass through a slab of the same thickness of concrete. Another piece of research which is being started is a similar kind of experimental work on materials which are used in building—bricks and stone, and concrete slabs, also mixtures of all kinds. That apparatus has just been erected and the experimental work will go on shortly. Turning to another matter, we were consulted not long ago, by the Office of Works in the first instance, on the problem of devising a roof for lighting a big picture gallery. The walls of the gallery were north and south, and the wish was to give equal illumination to the south walls as to the north ones. A roof was designed, and a model building set up, and though that has succeeded in giving fairly uniform illumination on both walls, it is in other respects not quite satisfactory. The result is that there is being put up now a room, I think, 60 by 30, or something like that, and 17 feet high, so arranged that temporary roofs of various kinds can be put on this building and

the effect investigated of allowing the light to enter from the roof in various manners. In that way it is hoped to solve the problem and get the required illumination for the pictures on all the walls of the gallery. I have ventured to mention a few researches in matters relating to building construction. Although I have no position at present which would enable me to speak with any authority as to what the Laboratory can do, I am quite sure that my successor, who is at least as interested in these matters as I was myself, and those who are now controlling the Laboratory will be prepared to give any assistance which may be possible to this Institute in carrying further the very excellent and admirable suggestions which have fallen from the author of the Paper this evening. I beg to propose that he receive a very cordial vote of thanks.

SIR E. RAY LANKESTER, K.C.B., F.R.S.: It is a very great pleasure to me to come this evening at your invitation. And I must say I came as one having, as we all have, an interest in the roof and walls which cover us, and to hear what Mr. Munby would have to say on the subject. I confess I thought he was going to speak chiefly on building material in the sense of stone, concrete and timber, and I thought of my earliest recollections of the present Houses of Parliament. The magnesian limestone was acted upon by the London atmosphere and it began to decay when I was a boy, and my father, together with other scientific men, was called upon to report on the best means of preventing this decay from spreading. I remember it was proposed to apply waterglass—*i.e.*, silica—to the surface of the stone, and eventually, I think, a resinous compound which, I believe, still exists, called, I think, Zedelmy, was applied to the surface. Later in life I came upon the University of Oxford, where there was a terrible decay of building material: the whole place was being continually repaired: it was in a state of foliaceous lamination, always falling to pieces, bits were falling down in the college quads as one walked along. I think that was due to some mistake on the part of the architects of the time in the use of a particular stone. It used to be said that they had set the wrong end up! (Laughter.) I think they had a very bad local stone: and they still do it. That is the kind of matter I thought I was going to hear about to-night. Then I found that Mr. Munby suddenly lifted the veil and showed that the architects' concern is with the whole mundane sphere of existence: everything which there is comes under their use and scope: they have to know all about it. I previously regarded the great architect as, perhaps, the greatest thing that any professional man could be, and I have often thought of the two great architects, Leonardo da Vinci and Sir Christopher Wren, two samples of humanity who really did take in an enormous view of Nature and of real things which they were able to bring to bear upon their magnificent profession. Mr. Munby mentioned some of the accomplishments of Sir Christopher Wren, but one thing which has always interested me, and which seems to be largely forgotten, is that, when he was a

Fellow of All Souls' College at Oxford, he made the beautiful drawings of the human brain which illustrate the great book on the anatomy of the brain by Willis. In this book the various cranial nerves are designated for the first time by numbers. So this extends the sphere of activity of that great man beyond even building materials to the thinking material which guides the erection of the great buildings. I am extremely interested in all that I have heard, both from Mr. Munby and from my old friend, Sir Richard Glazebrook. The area of investigation which is asked for is simply enormous; it is hardly possible for anybody representing a particular profession to undertake that investigation. But the attitude, it seems to me, of any practical man in a profession is to propound the problems: to say "I want to know this," "I want to know that." And these questions can only be answered effectively at leisure: they cannot be answered rapidly and immediately by the different bodies of scientific workers who have to do with the subjects on which the questions are asked. (Hear, hear.) For instance, no serious knowledge of stone can be gained by a rapid survey of the microscopical structure or the chemical composition or the rate of attrition of stone: it is a tremendous question, involving very minute investigation of a special kind, and it can only be carried out by an accomplished chemist. And so also in regard to other matters. The research cannot be set up as an architectural research, though the questions may be propounded by the architect, and the answers may be given by institutions like that over which Dr. Glazebrook presided so long and so well. For instance, with regard to the question of "dry-rot," which is a biological problem and comes near to the scope of the problems with which I have had to deal, that cannot be rapidly dealt with. The study of fungus growth and its relation to particular beds in which it can grow, and the particular materials it attacks, is a lengthy and difficult matter, and, so far as I know, there is more than one kind of fungus concerned in what is called "dry-rot." But, if further information is required on the subject, you must propound your difficulties and questions, and state what occurs in buildings, and mycologists and persons acquainted with the nature and growth of fungi and moulds can be called upon to investigate those questions. But it must be done by men having special skill and knowledge. And so again with regard to boring larvae, beetles, etc., it is an elaborate matter to know how to check them, and must be made the subject of very careful experiment. It seems to me that all this Institute can hope to do is to pose the questions, to point out what it is they want to know, to express a desire that this and that investigation shall be carried out. But they cannot organise that investigation themselves. I have very great pleasure in seconding this vote of thanks to Mr. Munby, whose address was certainly almost a revelation to me as to the enormous area with which the architect is concerned, and the tremendous basis of knowledge he ought to have, and, no doubt, very often has. (Laughter.)

Mr. H. O. WELLER, Director of Research, Building (Materials and Construction) Research Board: The Building Research Board does not pretend to omniscience: we want our Board to be a clearing-house: we do not set out to tackle any problem unassisted. For instance, faced with a problem in stone preservation, we started by getting hold of two experts on stone, Dr. Desch and Mr. Howe, and we could not have two better people. The Board was formed last summer. We were retarded in getting an experimental station of our own, but it is now being built at East Acton. It will have a chemical laboratory, an engineering laboratory, and a builder's yard equipped with instruments of precision. The Board is formed under the Research Department, which is constituted under a Committee of the Privy Council. Mr. Balfour is the Minister, and I do not think it is wrong to say it is due to Mr. Balfour that the Building Research Board was instituted. There were objections before, but Mr. Balfour cleared them away. (Applause.) The terms of reference are "Materials and Construction." Mr. Munby's Paper this evening is on materials, so I will deal with that only now. Our policy is, after a survey, to attack fundamental problems only: it is quite impossible to attack all the problems which are before architects. After a consultation with the Portland Cement Research Association, we are tackling the setting and hardening of cements. It was a problem suggested by the Faraday Society a year or two ago, but the work on it was held up by the war. We have one chemist starting work under one of the well-known experts. And we have a small problem concerning the colloidal properties of clay. In Paint Research we have at present only one problem, the search for new bases to replace lead. Then there is the standardisation of materials, or the issue of standard specifications. Mr. Munby was saying how engineers have been helped by specifications in steel, and architects by specifications in Portland cement. We think there should be standard specifications for sand-lime bricks and Iron Portland Cement. We are working this through the British Engineers' Standards Association. Any material they will not deal with we might work at in conjunction with the R.I.B.A. There are things which do not appeal to engineers which might appeal to architects, and for this I suggest, tentatively, we might have a Royal Institute of British Architects' Specification series. (Applause.) We are working on a few new materials which have been discovered by other Research Boards. There is a new flooring material, a new distemper base. We are also watching a very interesting new cement. Another research we have started is stone preservation. After some little survey of this we have decided to base our work on the use of silico-fluorides. They have been used a great deal on the Continent, in France especially, but they have not been used in England, except that there is one salt sold like a patent medicine. Sir Richard Glazebrook mentioned the transmission of heat through materials, and the experiment we have in the

National Physical Laboratory. We are continuing the use of a very ingenious piece of apparatus which Dr. Griffiths was using for the Food Investigation Board. With that he has investigated all kinds of materials used in refrigerators and we hope to carry on the work—that is, Dr. Griffiths will for us—with building materials. Our methods of working are direct and indirect: direct by work at our own central station, and indirect by subsidy of approved workers who will attack problems of interest to themselves and to us. The Department generally is always open to applications: they need not necessarily be made through the Building Research Board, they can be made direct to the Secretary of the Department. Another branch of our work in which I should like the help of the Institute is in the study of failures. One learns much more from failures than from successes—(Hear, hear.)—for if a structure succeeds you do not know much about it: it may be ten times too strong, or you may have got it just right by a fluke. But a failure enables you to find out something. Any information about failures will be of great interest to us, therefore. We intend to make results available by publication in the form of special reports, or by allowing investigators to read Papers before societies. That is the general policy of the Department. In the third paragraph of Mr. Munby's Paper he says: "It may be that technical matters should be left to pure technicians, the architect confining himself to planning and design." The root of the word "architect" suggests that he should be, above all things, a technician. There was mention of the amount of money they get for these things in Germany—a quarter of a million sterling, and so on. If we had all that money we might be able to do many things. However, we have a certain amount of money, and I hope it will be used efficiently. With regard to timber, there is a Timber Research Committee in the Department. The work is under a botanist, Professor Groom. We are keeping to our own problems at the moment. I, too, think Mr. Munby ought to have made plenty of converts this evening, if architects do need converting. I would like to read a quotation out of a book by one of the greatest architects—Viollet-le-Duc. Speaking of builders of the twelfth century he says: "We are not surprised to find among these builders a profound knowledge of the materials suitable for building and of the resources furnished by their use." And again he says: "Excellent materials are detestable if used in disregard of their proper place and function." (Hear, hear.)

Mr. J. ALLEN HOWE, Assistant Director to the Geological Survey, I have viewed with the greatest interest the field which has been so eloquently opened out to us by Mr. Munby. Not only has he explained the many opportunities that are before us for research, but he has given us what I may almost describe as a picture show in addition, which I have enjoyed very much. Mr. Weller has told you about the multiplicity of the work he is undertaking: I must myself stick to one material, the only one I know anything about,

that is stone. I may be able to relieve Mr. Munby in one respect, because I have come to the conclusion, in regard to research into natural stone as a raw material, that not enough use has been made of the results which have been arrived at in regard to it: that is to say, architects and engineers do not use the results of the tests, and the enormous amount of labour which has been expended in finding out the quantities of stone, its chemical, mechanical and physical properties. And it is easy to explain why the tests are not used. Stone differs from most of the other materials which you use in building—except timber—in being a natural product, one which you do not have any finger in making yourselves. You cannot decide beforehand what a stone is going to be like: you have to take it as it comes. It is that individuality in every piece of stone which gives the charm to its use in building. And you must take the good with the bad, because when the stone is being weathered and moulded by time, you get a good patch here, and a bad patch there, it makes all the difference to the final aspect, whether in ornamental work or in a plain wall. Stone has a character of its own. That is why it is of little use going on with experimental work on stone from that point of view. I have given much time and trouble to the study of this problem, and that is the conclusion to which I have arrived. I do not say further work should not be done on stone: we do need more work on it. For instance, in regard to our own British stones, we have not yet a complete directory of British stones, only fragmentary information. We have no work which we can turn up and say "This is all we know about granite, or about sandstone, or about limestone." I think we are now in a position at the Geological Survey to remedy this: the Director has in contemplation a report upon the different stones, taking a group at a time. And we shall look to this Institute for advice as to what tests, if any, you would like applied to these stones, so as to have proper data published with regard to them. I have my own ideas clearly on the subject, but I am open to instruction, and I think I can say, for the Geological Survey, we are prepared to undertake, directly or indirectly, any tests which you feel would be useful. We hope to take this work in hand soon. I think I may say that the research on stones may be grouped under three heads. We have, in the first place, research on natural stone, its mechanical, physical and chemical properties. Then there is the question of what to do with the stone in the old buildings where the stone itself has gone, as has seriously happened at Oxford, for example, where much poor stone was used. But even good stones fail here and there, and they do so in particular parts of a building. And may I make this suggestion—and I do it with humility in the presence of architects—why not, in the parts of the building where the stone is known to be subjected to particularly trying attack by moisture, and so on, and it is generally in a situation a little out of sight, why not place instead of stone some other material in those positions? It might be a subject for research as to

what materials you would substitute. It seems a little stupid, because stone is used in the lower part of a building, that you must necessarily put stone in the higher and more exposed parts, positions where you know beforehand it will certainly be attacked. There can only be a sentimental reason for carrying stone right to the top. It would be an important subject for research to find what material can keep its appearance and be a good substitute for stone. My friend has been mentioning silico-fluorides, and I have come to the conclusion that is the only treatment we know at present which is any good, yet I am sceptical about the application of it to the old building stone. I have never yet seen old treated stone which has lasted even a few years very satisfactorily. After a year or two, another application must be made of the same substance, and if you have to go on doing that you might as well have cement or other substance, because you are altering the look and character of the stone. It is a difficult problem, but it is one well worthy of being tackled, and I feel sure every effort is being made to get at the bottom of it. There is a third means of attack on the subject, and that presents even more difficulty. It might be possible, if we could devise some reasonably cheap means of dealing with stone before it is put into a building, to do something which we have not attempted on any scale—that is, giving it a bath of some preservative: it might be one of the silico-fluorides. If we could, at a reasonable cost, tackle stone in that way, we might go far towards getting almost perfect material.

But, in the end, when all has been said and done, the question of cost always comes in. You have a well-defined difference between granites, sandstones and limestones, and you know that if you want to put in something which will last well for a long time, you employ granite: when it is a question of material which will be lasting, there is granite ready to your hand. But you cannot pay for it, and that is the difficulty all along, that is the bed-rock of half the architect's troubles. The architect says: "I would like to put in so-and-so, but my client will not stand its cost." I have very much enjoyed Mr. Munby's address, and I would like to take this opportunity of saying that anything our Department—the Geological Survey—can do towards the objects outlined to-night we shall be only too glad to undertake.

Mr. H. D. SEARLES-WOOD [F.], Chairman of the Imperial Institute Timber Committee, rising at the invitation of the President, said that his Committee had very great pleasure in furnishing the samples of wood on the table. Dr. Chandler who was present would explain them to anybody who examined them after the meeting. With regard to the Timber Committee at the Imperial Institute, it was their intention to have an exhibition of the timbers that they had selected from various sources, and the information that they would give about the uses and the new sources of supply would be of the greatest interest to members of the Institute. It gave him very great

pleasure to support the vote of thanks to Mr. Munby for his admirable Paper.

The PRESIDENT, in putting the motion, said: The duties of an architect cover an enormous field, perhaps a wider field than that of any other profession. Let us be thankful that the watchfulness of Providence extends over an equally wide field, looking specially, we are told, on children and sailors, and, no doubt, architects, preserving them from falling when they get into difficult places. With regard to the materials, lime and cement, which have been alluded to, I think much turns on the question of lime *versus* cement in brickwork, when a failure in a modern building results in a crack. I think that is largely because of the extensive use of cement, a rigid material; whereas in the old days, when we built of lime, there was always a certain elasticity and adaptation of the structure to the slightly varying circumstances, to which it must conform, either by alteration in shape or by cracking. The tests we have been hearing about are all, if Mr. Munby will allow me to say so, too elaborate for the ordinary working architect. But we urgently want an authorised series of simple tests for the ordinary clerk of works. (Hear, hear.) We have, as you know, all sorts of rough-and-ready tests. I was extremely delighted to find that our old preference for the hand-made brick and tile is fully justified, and that the wretched pressed-brick and tile are very bad and soon decay. We shall rub that into our clients, because hand-made bricks are expensive just now. There is one question I would like answered by British scientists, and that is, why British-made glass is green. If you turn British window plate-glass on end you see it is a dark green. I have had the good fortune to build several picture galleries for the exhibition of delicate works of art, and I have been obliged to go to Belgium or to France to get white glass. You cannot show delicate water-colours under glass which is green in section without manifest detriment. I cannot understand why we do not produce a decent white glass in England: is it a matter of cost? We want simple tests and simple remedies. The question as to the cause of dry-rot is a botanical one: it does not interest us a bit: what we want to know is how to get rid of it, and we want to know that at once. My own rough-and-ready method has been to cut out all the affected parts as far as possible, burn the material, so that the fungus shall not be conveyed in other directions, and then to thoroughly wash all the work around, as far as it could be reached, with a dilute solution of corrosive sublimate. I do not know whether that is good or bad, but it seems to cure it, for there has been no recurrence of the mischief after that drastic remedy. It would be of enormous benefit if the Chairman of the Science Committee would turn his great energies to the production of a small handbook for the use of clerks of works and ourselves, showing simple and effective tests for the materials we have to deal with, and also some remedies that we could apply for minor defects which occur in buildings.

Mr. MUNBY, in responding, said : While I am very grateful to the proposer and seconder of the vote of thanks, I am sure that any pleasure and profit to be attributed to this evening is due firstly to our guests, and secondly to the organising ability of our Secretary, Mr. MacAlister. May I relieve the monotony of my remarks by one anecdote to show that those who have no use for science are at least in very pleasant society. Calling on a scientific friend the other day, he mentioned to his wife with some pride that their small boy was showing a taste for experiment. The lady's reply was unexpected. "Well," she said, "anyhow, it is your fault." This enables us to understand the ungracious attitude towards the sex of Wren's Oxford Professor. We have had evidence to-night that our scientists are very learned, but they are also really very human people. I remember the late Lord Rayleigh telling me of a visit he paid to a laboratory of a scientific friend, and one thing seemed to have impressed him more than anything else. He said, "I opened a drawer which was labelled 'Corks,' and there were corks in it!"

Mr. ALAN W. DAVSON, F.S.I., writing since the meeting, says :—

My interest in the question of research is more in relation to "individuals" than "materials." Nevertheless, the two are interdependent. The more certain we are of the precise nature of materials used, and their action under varying conditions, the more certainly can we educate and train individuals to the best methods of usage and to careful selection of materials for particular purposes. To-day the architect is crowded out with every conceivable variety of material. Some may appeal more to the eye than others, yet those which appeal less to the eye may be more desirable and useful for practical purposes. The architect or surveyor knowing this invites to his aid some expert in research, and is carried away with enthusiasm at the arguments in favour of a special material, only to place the same question before another research worker whose ideas appear to the uninitiated largely contrary, though they are not necessarily so. This fills the enquirer with despair, and he is inclined to return to his haphazard methods and trust to luck. Nevertheless, pure research is at the basis of progress, and applied research the connecting link between it and practical utility, whether in relation to materials or individuals. The haphazard choice of materials and men in the past for particular jobs and particular types of work respectively is largely responsible, in the opinion of the present writer, for much of the industrial unrest existing in the building industry and all industry. It is by such papers as Mr. Munby's, which bring to light the essential value of research, that, it may be hoped, the empirical nature of the Englishman will be overcome, and be replaced by a greater desire for and belief in "scientific method."

Mr. E. B. MOULLIN (School of Architecture, Cambridge University) writes :—

May I take this opportunity of thanking the Institute for giving me the opportunity of hearing Mr. Munby's most interesting and instructive Paper. Mr. Munby referred to the wide range of knowledge required by an architect, and the illustrations to his Paper and the discussion strongly emphasised this point. In the short span of human life it is clearly impossible for any one to become equally conversant in so many subjects. Hence it seems inevitable that the detailed scientific research into new building materials, and into the failure of existing ones, must be largely carried out by those who have had the long scientific training necessary for the purpose.

But for this scientific work to be productive and useful the suggestions and inspirations must always come from practising architects. In order that this partnership may be effective, it is necessary that the architect should have a wide education in the general broad principles of science, and that his training should help him to give accurate and unprejudiced descriptions of his experiences to his scientific collaborator. He must be able to give a reasoned and detailed criticism of the success or failure of new materials and processes: be capable of properly analysing and observing failures, and of making the correct deductions as to their cause. The advantage of this faculty is well illustrated by Mr. Munby's example of many cases of dry rot being caused not so much by faulty timber as by such a simple matter as badly conceived rainwater pipes.

At the Cambridge University School of Architecture much importance is attached to the teaching throughout the whole course of the mechanics of building construction and the properties and manufacture of building materials. And this teaching is carried out in such a way as to do everything possible to assist the student to form an analytical habit of mind and to make a mental and descriptive estimate of a problem before proceeding to an exact and numerical solution.

It is every member of the nation who benefits by improvements and economies in building, and consequently financial support for research must come from the public purse, in order to assure that the benefits thereby attained are a national asset and not merely a commercial profit to some firm. What Mr. Munby has said about improvements in lime is particularly interesting to me, and I should like to suggest that this is one of the really outstanding needs at the present time, in order that so much expensive misuse of Portland cement may come to an end. The photographs Sir Richard Grazebrook has shown of concrete blocks split by leakage currents are very suggestive. This is bound to be a further risk, apart from that of fire, of the use of electricity in concrete buildings. But if the earthing and bonding of the protective case of the wires is properly carried out it is impossible for this to occur. I know from experience that the earthing and bonding in buildings is seldom above reproach.

One of the speakers suggested R.I.B.A. specifica-

tions for various things. It is well to remember that there is already a most excellent wiring specification by the Institution of Electrical Engineers, and if architects will do their best to insist that wiring is carried out strictly in accordance with these rules it will be an advantage to all concerned.

Mr. W. E. VERNON CROMPTON [F.] writes:— I was sorry to be unable to remain until the close of the discussion upon Mr. Munby's excellent lecture: perhaps, therefore, I may now be permitted to suggest that one of the principal things that requires thinking out is the organisation necessary to link up the architects, or for the matter of that the whole of the building activity of the country, with the technical experts.

The Science Standing Committee of the R.I.B.A. is doubtless fully aware that owing to the increasing complexity of our civilisation it cannot now be expected to carry out direct research or express opinions upon many of the difficult and far from elementary problems that are brought under its notice: it is, therefore, essential that there should be some organisation in existence available for the R.I.B.A., through its Science Standing Committee, whereby these varied problems may be brought before the appropriate research association. The *liaison* between these two bodies, at present so feeble, requires strengthening, and where deficient it requires organising, so that the R.I.B.A. and similar bodies could bring their problems before the appropriate scientific expert for solution almost as a matter of right.

During the early days of war, a Research Committee was appointed, first as a Sub-committee of the Science Standing Committee, and afterwards as a direct Sub-committee of the Council, to consider and report upon this matter, and in their report to the Council this committee advised among other things the desirability of further research on dry-rot, glass for pavement lights, and corrosion of ferrous and non-ferrous metals. Early in 1916 some members of this Research Sub-committee attended at the offices of the Board of Education, and met the recently appointed Committee of the Privy Council for Scientific and Industrial Research, under the chairmanship of Sir William McCornick, before whom they laid their case, and asked that the above-mentioned subjects should be earmarked by his committee as subjects which should receive attention and financial assistance.

Our Research Sub-committee continued its endeavours and ultimately made some progress with reference to the corrosion of non-ferrous metals, and in 1918 it was instructed by the Privy Council Research Committee to get into touch with the Institute of Metals. A definite committee was therefore formed, consisting of three members of the R.I.B.A. and some members of the Institute of Metals, with Mr. Munby as chairman. They had several meetings and formulated a scheme. Having succeeded in obtaining guarantees of about £350 per annum for two or three

years, to which fund the R.I.B.A. contributed, they approached the Privy Council Research Committee again, with a view primarily of obtaining further financial support on the basis of £1 from the Privy Council Committee for every £1 collected privately.

After various delays and critical periods in the negotiations, which undoubtedly added a phase of excitement to the work of the committee, the Privy Council Committee decided that the work should be continued by the British Non-Ferrous Metals Research Association. At first it seemed as if the spade work having been done by the R.I.B.A. and the Institute of Metals, another body was instructed to proceed, with headquarters at Birmingham, where it was anticipated the research work would be carried on: but eventually matters were so organised that four members of the British Non-Ferrous Metals Research Association joined the original Committee of the R.I.B.A. and Institute of Metals, and the Research Chemist, appointed last February (some five years after the matter was started by the Science Committee of the R.I.B.A.), has been transferred from Birmingham to London, to work under Professor Carpenter at the Imperial College of Science and Technology, where he will be in touch with other types of corrosion.

The cost of this research is nearly £800 per annum, but it is hoped that in a few years something will be evolved that will prevent objectionable oxidation of electric and gas fittings and other brass work, so disgusting in appearance, and will save domestic servants and other people consuming millions of hours per annum and gallons of metal polish in their efforts after cleanliness and decency.

I venture to suggest that if the R.I.B.A. could initiate and carry through to a like conclusion research into dry-rot and the acoustics of buildings, they would be conferring a public benefit.

Mr. HENRY W. BURROWS [A.], F.G.S., writes:

The lateness of the meeting on the 18th April prevented me from taking part in the discussion of Mr. Alan E. Munby's most informative lecture, on which I beg to be permitted to make a few notes.

Building Stones.—The slides showing the action of weathering on some of our commonest building stones exposed for the past ten years on the roof of the Geological Museum in Jermyn Street were particularly noteworthy. They confirm the views expressed about thirty years since by my friend the late Geo. F. Harris in the many articles from his pen in the pages of *The Builder*. They confirm, too, the opinion, expressed in my paper on the *Examination of Building Stones* read before the Institute in the year 1893, that "the nature of the cementing material and its disposition around the particles of which the rock is formed . . . should be the chief objects of our inquiry." The examples shown at the lecture clearly demonstrated this, for the oolitic granules stood out clear and distinct from the matrix which had been etched out by the weathering of the past ten years.

The late Mr. F. W. Rudler, the then Curator of the Geological Museum, in 1893 suggested the desirability of making "an investigation of the principal stones that come into the market," with a view to "schedule . . . the results obtained from chemical, from mechanical and from optical examination." It is, therefore, particularly gratifying to learn from Mr. Allen Howe that we may soon expect to have such a schedule, which will be welcomed by every architect in this country.

Defective Roofing Tiles—The Science Committee of the Institute invited me to make a preliminary examination of several defective roofing tiles sent by architects from various parts of the country. In order to form any reliable idea of the probable reasons for the failure of these tiles it seemed to me that we ought first to endeavour to ascertain—if it were possible—the chief characteristics of tiles of proved durability. To that end I collected and examined several old hand-made tiles, some dating back to Roman days, including tiles made from sandy loams (Fig. A), and those made from almost pure clays (Fig. B). All these old and durable tiles, so far as I have yet examined, have one particularly striking character in common. They all have numerous *air-pores* throughout their mass; whereas in the defective pressed tiles so far examined air-pores are lacking. This one fact may prove to be of the utmost importance, although it is impossible to generalise on the subject until many more specimens, good and bad, have been examined.

It would be rash, indeed, to assume that all hand-made tiles are reliable merely because the old hand-made specimens dealt with have proved to be exceedingly durable. Among the defective tiles is a modern hand-made specimen from the Midlands which has failed lamentably. So far as the material is concerned it appears to possess all the characters of a durable tile, and air-pores are abundant. The tile, however, is very roughly made, and the defects appear to be due to the manufacture, not to the material. Many architects, too, could testify to the fact that the pressed tiles of thirty to forty years ago have weathered well, which again suggests that durability depends at least as much on manufacture as on material.

It is sometimes thought that the failure of tiles may be due to the presence of carbonate of lime. In the defective tiles examined there is barely a trace of it. Here we need the help of the chemist, but, so far as I can at present determine, the white, or biscuit-coloured, material in some of the tiles tested is apparently not calcareous but felspathic. Whether or not this substance becomes *kaolinized* in burning, and so liable to expansion and consequent splitting of the tile, is one of the points requiring very careful study.

The tiles have been tested for *the rate of absorption*. It appears that but little dependence can be placed on this test *per se*. Tiles (like Fig. A) made from sandy-loams absorb more than those made from clays (Fig. B). It would appear that we must compare tiles class by class, just as with building stones it is neces-

sary to compare limestones with limestones, sandstones with sandstones, and so forth.

In illustration of this point it may be noted that tile A absorbed 7.5 per cent. of its dry weight in one hour. The pressed defective tile (Fig. 2) absorbed only 4.2 per cent. in one hour; while a thoroughly good tile (Fig. B) absorbed exactly the same percentage in the same time.

A rule-of-thumb test is to strike the tile to ascertain if it "rings" well. This test, too, appears to be delusive, for some of the defective tiles ring as well as or better than those of proved durability.

The Science Committee are anxious to study this matter of defects in roofing tiles as fully as may be possible. To insure any approach to success it will be necessary to adopt a systematic scheme. Tile works should be visited with a view to studying the material used and the processes of manufacture, and chemical, physical, and microscopical examinations should be made. If the subject is to be properly investigated it will, doubtless, prove to be a long, laborious and somewhat costly business.

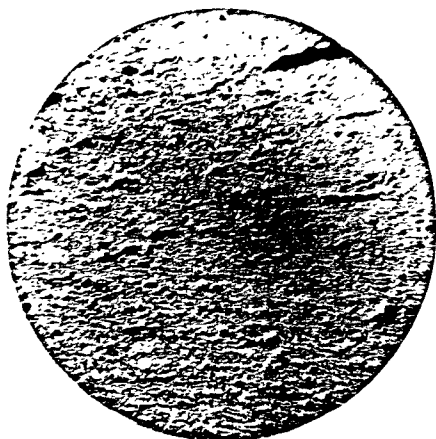
I venture to suggest that this matter of defective roofing tiles is one that really concerns manufacturers more than architects, as we are entitled to expect an article that shall prove to be durable. If this be so we may reasonably look to tile-makers for their cordial co-operation in elucidating a problem which is alike to their interest and to ours.

Note.—The density and minute structure of the tile matrix makes it extremely difficult to obtain satisfactory transparent sections. The figures show transverse *solid* sections, the full thickness of the tiles. All were photographed under the microscope by reflected light. All are magnified 6.5 diameters.

H. W. B.

Testing Steel and other Metals: Demonstration at the Institute, 6th June.

The Science Standing Committee are arranging for a demonstration before the Institute of a machine for rapidly testing steel and other metals. The Committee consider that it would be particularly useful to members who have to test small specimens of the steel which is being used in the construction of their buildings, and it would be of great assistance to District Surveyors in the discharge of certain of their duties. Usually tensile tests are only made when definitely specified as part of the contract, or in case of dispute: the purchaser has to rely on the statements of the people who supply the material. There is consequently a field in workshop practice for a simple test (requiring only a small amount of material and a test piece of simple form) which can be rapidly carried out, and which, even if it has not the high order of accuracy of the tensile test, can nevertheless be relied upon. The demonstration will take place at the General Meeting of the Institute to be held on the 6th June.



A



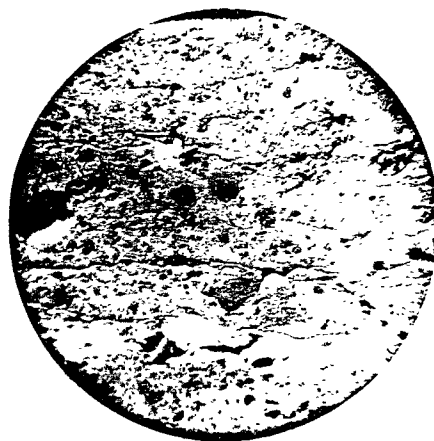
B



1



2



3



4

Micro-Photo by H. W. Burrows

Magnified 65 diameters

MICROSCOPIC STRUCTURE ROOFING TILES

CHARACTER IN MODERN ARCHITECTURE.

By Prof. C. H. REILLY, O.B.E., M.A. Cantab. [F.].

Paper read before the Liverpool Society of Architects,
24 November 1920.

THE main sources of character in architecture would appear to be the same as in the individual human being. They may be divided in both cases into the categories racial, individual and acquired. To these some would add the dictates of fashion. Architecture, or the best architecture, however, suffers less from the vagaries of this tyrant than do the other arts. The man who will design a permanent structure and trick it out with fashionable detail, not to answer any need for expression, but because he has seen some such detail in the building papers, is not a serious artist. He is a *poseur* as much as the man who wears a special cut to his clothes in the hope that thereby he may be thought to be a person of some distinction. It is not the work of such men that we would wish to consider. That there is a great deal of it to be seen no one will deny. Every competition reveals it, our streets overflow with it, yet, nevertheless, we know that in the long run it is negligible.

Let us take, then, the main ingredients in order and consider first the racial contribution. All through the history of past architecture building forms have been among the most distinctive national products, and the older the buildings the more distinctive do their forms appear to us. As intercourse between nations has increased, shapes, and the ideas they embody, have been gradually assimilated until they have taken on the tones of the native architecture, and in the end have become inseparable from it. It was in this way that the architecture of the Italian Renaissance permeated French and English work. In all the earlier importations no doubt the French or English architect thought he was building something entirely Italian in the new and fashionable manner, but local tradition was always in the end too strong for the innovator. The result was a French or English variant of an Italian theme. Take even extreme cases like the Earl of Burlington's villa at Chiswick. This was indeed supposed, at the time of erection, to be a copy of Palladio's similar villa at Vicenza. We now realise how anglicised a version it is. Inigo Jones's Banqueting Hall, although it marked a departure in England almost as bold as Brunelleschi's Pazzi Chapel in Florence, is a very different building from one which Palladio himself would have erected in Whitehall. Even the imported Italian architects, when it came to whole buildings and not merely monuments, were at once under the same sway of local feeling and methods. Leoni's Italian front to Lyme Hall, Derbyshire, is not so very different from the many other so-called Palladian buildings erected by Englishmen at the beginning of the eighteenth century. But this power of absorption, whether based on national conservatism or sheer ignorance (sometimes its equivalent),

is less powerful to-day, and on the whole I think we would have it so. Where the practical conditions are similar a good modern building might now be almost equally at home in any European capital, with, perhaps, the single exception of Paris. Paris is more distinctively national in her new architecture than any other capital city. All nations, however, feel her influence, and especially those across the Southern Atlantic. Through her highly organised and centralised Ecole des Beaux-Arts she still wields an immense power, but against her a new competition has arisen. America is the new power in world architecture, and she is a power which makes for cosmopolitanism. Just as she herself is the product of many races so is her architecture. Her great designing groups, like the firm of McKim, Mead and White, draw their inspiration from all classical and post-classical sources. They are Roman when they want to express power, as in their great railway stations, Greek when they want to express refinement, as in their art galleries and museums, Italian or Georgian when they want to express the domestic comforts or virtues. The great American architects are the heirs of the Old World, and well are they using their heritage. Further, the wealth and potentialities of their country mean that their architects have had to tackle and solve such problems as the high building and the giant hotel before those of other nations. We shall all come to such things, but they have reached them first. The result is that in such matters they have already largely settled the type and character. The influence, therefore, of America, as her work is more and more known, is likely to make for a decrease in nationalism. Through her example we too shall become heirs to the world's architecture, unless, indeed, the rank growth of nationalism, which is one of the unfortunate effects of the Great War, reinvades the domain of art and each nation is thrown back again on its primitive forms. On the other hand there is this danger in this new cosmopolitanism, which even so good a building as the Cunard Building, Liverpool, exhibits, that we shall have in one and the same building a mixture of conflicting detail. French, Italian and Greek may be found together imperfectly fused. That may be the necessary concomitant of any transitional period. It is one, however, which greater knowledge should gradually overcome.

Let us look at the matter from another angle. The history of the architecture of any nation since the Renaissance may be considered to be a gradual absorption of foreign elements. Our own Renaissance architecture, since the immature early period, has been ably divided into the following divisions by Professor Richardson: the first Palladian period, including the rough Palladianism of Wren and Inigo Jones, the second Palladian period when Palladio's ideas were more completely absorbed, the Roman Palladian period when men like Adam went behind Palladio to Roman sources, the Græco-Roman phase when Greek detail was gradually brought in, the pure Greek phase, and finally the neo-Greek and Italian phase, when for a time our archi-

teets, like Charles Barry and Cockerell, proved themselves worthy inheritors of the complete classical and post-classical past. This evolution, if looked at as a whole, is one of clarifying the stream and getting back to its true sources. French architecture went through a similar evolution. What I take to be happening now in America, and what I hope will happen to us too, is that this same process of absorption and clarification will be applied to all modern classical architecture, and that as a result a new international architecture will arise in every country. In our hearts, even if we have a little natural jealousy, we see no incongruity in the great American building which is in the course of erection at the present moment at the bottom of Kingsway, London. Most of us really welcome it as a building which will influence our own work for good. It is interesting to recall how we have in our time and in Liverpool seen this process of absorption and clarification carried out. In the last twenty years we have recapitulated, as it were, the history of the last two hundred. Twenty years ago most people were doing the kind of work Sir T. G. Jackson and Sir Aston Webb won their spurs with: that is, small scale Early Renaissance work in which the Orders, if used at all, were used as ornaments to structures essentially Gothic in spirit. That corresponded to the Elizabethan and Jacobean stage. One example in Liverpool not more than twenty years old is the façade to St. John's Market. Then in natural sequence followed the Wren stage of fat unfluted columns and somewhat heavy detail. The Dock Board Offices and Technical School, Liverpool, are examples of this. Then followed the Neo-Grec movement, which was pushed by certain of our schools of architecture with the quite definite intention of purifying detail and adding elegance to design. Of this stage the West African Bank, Liverpool, and the interior of the Cunard Building are conspicuous examples. The difference in refinement and strength from the buildings of the preceding stage is obvious to anyone and yet the buildings are by the same architects, for instance the Dock Board Building and the West African Bank, the University Club and the Cunard Building. The exterior of the latter indicates the next and present stage, when to complete classical proportions and scale are added contributions from the Italian and French Renaissance. Gradually, then, in Liverpool, as in America, the best architects have again reconquered the whole field, just as Barry and Cockerell had for another generation. They have done for Liverpool what America has done for the world. The great post-classical styles are now consciously used according to the programme set for the definite expression each can convey. As nothing in art stands still let us hope that the same high standards will be applied to all future buildings whatever their use, and that we shall have no more harking back to imitations of those past periods when knowledge was not so complete as it is to-day; or if it has to be done at the whim of some client, let it be done as Professor Adshead has suggested, consciously, as a definitely planned anachronism

complete in all its parts. If we have to put up an Elizabethan building it should be done thoroughly as a conscious exercise in a past style.

Let us now turn to the element of individuality in modern architecture. This is a much more difficult and debateable point. During the last fifty years I should say we have suffered from an excess of individuality. We have had too many secessionists. Certainly we have in domestic work, and their influence has been unsettling. It is a great relief to me to see in the numberless housing schemes of the present time that the influence of soberer men like Ernest Newton and Adshead is on the whole prevailing. The work shows a return to tradition instead of a violent break from it. But, after all, architecture is effected from the top not from the bottom, and the trend is determined by monumental buildings, not by cottages. Can an ordinary man working in the modern universal monumental manner already mentioned show the individuality, say, of the late E. A. Rickards? Rather is it right that he should? I should, a little hesitatingly, say no. If he does express his own individuality to that extent, so far, however great an artist he may be, he is not in the main stream, he is not advancing the architecture of his age. I realise this will seem a hard saying, and it certainly requires some justification. No one was a greater admirer of Rickards's work than myself, no one had better opportunities of knowing how strictly in his case the work was the man. At his death a famous critic said what a pity that Rickards with his special gifts of rhetorical architecture was never commissioned to build a theatre or a picture palace, but had to be content with town halls and churches. To this an architect friend replied that that made no difference; he never built anything but picture palaces-- and there was a great deal of truth in the answer. Whether it was the Wesleyan Hall at Westminster or the Town Hall at Cardiff, Colnaghi's Gallery in Bond Street or the Third Church of Christ Scientist in Half Moon Street, we have the same Baroque detail, the same extravagant yet vital Baroque spirit. It is not so much that these buildings do not express their varied purposes-- that they sin against Mr. Ruskin's dark lantern of truth. That is to my mind a comparatively small matter. The great Jesuit Churches of the Baroque period in France and Italy would to-day make marvellous cinemas, and are thereby none the less fine works of art. The point is that these buildings of Rickards's are so entirely personal to the man himself. They can have no real successors. We may have, and we probably shall have, a few feeble imitations, but Rickards's art was a personal art and died with him.

The great buildings of the world have always belonged less to the individual architect and more to the age in which they have been built. In the same way the architect of to-day must be willing to sink himself in a greater whole: to lose his soul to find it. This is the history of all the great periods. We talk of Ictinus and Brunelleschi, of Inigo Jones and Mansard, but we

think of the whole phase of buildings for which these men stood. Liverpool perhaps offers one of the best or worst examples in the world of excessive individualism in architecture. I refer to the group of the three big buildings at the Pier Head. No one looking at them as a group, whatever their respective merits or demerits, can fail to realise their gigantic disharmony; a disharmony in the main brought about by the excessive individualism of their designers. Although these buildings were all built within the last fifteen years, and all for similar purposes, the architect of each was practising at the time in a different phase of the post-Classical tradition, though I am not quite sure whether even that phrase can be stretched to cover the Royal Liver Building; let us take this building first and try to analyse its character as it appears to the ordinary man. For the architect of course it is a mass of incongruities, but to the man in the street it is rather a romantic pile. A mass of grey granite to the cornice, it rears into the sky two quite unnecessary towers which can symbolise nothing but the power of advertisement. It is only your hard-headed business man who can waste money in this light-hearted way. It appears that if you promise him a clock that is bigger than any in the world he will build, not one, but a couple of unnecessary towers in which to house it. Yet this building, towers and all, with its coarse and commonplace detail, has a certain brute force combined with its romantic character. In place of elegance and refinement it offers to the world a bold sentimentality not unlike some north-country types of people. It seems to say "I am a great awkward sentimental creature unused to civilisation but I have strength, and whether you laugh at me or not I shall get what I want."

The Dock Board building at the opposite end of the group is of an entirely different kind. Its great and finely outlined dome with four subsidiary domes follows closely the composition of the Belfast City Hall, which preceded it by a few years. Its character, by the association of ideas which a central dome calls up, is civic rather than commercial. The detail of the building with its numbers of large unfluted columns seems to emphasise this. Such a building should, of course, have had a central site. A great dome raised on a drum should always mark a focal point in the city's plan, and should be reserved for its most important building. In America such a dome connotes the City Hall or Parhamment House. In the Old World, except for Belfast, it has generally been reserved for a great cathedral. Here, therefore, we have a totally different character from that of the Liver building.

In the central building, the Cunard Block, we have a character differing from either, though like the two others it is a commercial building, designed in the main to house the offices of a single big company. Here, however, we have a sober solid block, simple in outline, which on closer inspection reveals a great amount of fine detail, varying a little perhaps between Italian and French, but expressive and sincere enough. The whole gives the impression of an Italian Palazzo well suited by historical association to a city block. If one

may venture on the comparison, the Liver Building is as obviously plebeian as the Cunard is patrician, even if a little doubtful of its descent, whereas the Dock Board, because it appears to use clothes which belong by tradition to another walk in life, one might perhaps, without offence, call *nouveau riche*. However, the point I wish to emphasise is not the character of any one building but the diverse character of all three, and the way the town as a whole suffers by it. Obviously if there had been any great restraining tradition as in the culminating periods of architecture, no such diversity would have come about. It may be replied that the three unequal sites helped to bring about the three unequal buildings—to which I should answer that if we had been under the thralldom of a really vital tradition the unsymmetrical division of the sites would not have been possible any more than the individualistic character of the resultant buildings.

This brings me to my last and final point. In the absence of tradition how, for the general good, are we to restrain the individualism from which we are suffering? Abolish it we cannot and would not. If we did the architect would cease to be an artist and become a machine hack. The answer, I think, must be the answer a parent or schoolmaster would give with regard to the character of a child. It is comprehended in the one word "training." It is the boast of our public schools that whatever sins of omission they may commit in education they do at least train character. They do it, too, by placing the boy in certain obvious predicaments, such as membership of a team or being prefect of a house where a definite standard of conduct has been laid down. Now in the complicated and self-conscious art of modern architecture it is only by a knowledge of the precedents established by past forms for certain predicaments that the ordinary architect can hope to give the right character to his buildings. It is a knowledge hard to obtain in these days of eclecticism where so many possibilities are open to him. One cannot any longer be content with blindly following the work of one's contemporaries, as in the ages of tradition or faith, for that in itself derives from all sources and is as varied and heterogeneous as the colours of the kaleidoscope, without, too, the remarkable faculty the pieces of glass in that instrument have of falling into a definite pattern. If you shake the kaleidoscope of modern architectural forms you are at present as likely as not to get a group of buildings like the group I have described at the Pier Head, Liverpool. In the days of faith things were, of course, different. Tradition made the various pieces come together. One forgets how recent those days were. Think of Rodney Street, Liverpool, or Regent Street, London; of the London squares or the Liverpool ones. But in architecture, as in other spheres, faith to-day must largely be replaced by knowledge. Knowledge cannot give the same sublime confidence, but it does prevent blunders. It provides in architecture an alphabet and language of immense range and pliability ready for use. It is a language rather like Chinese, in which a separate symbol stands for each word or

phrase, and which is consequently rather difficult to learn. The complete range of it in modern times has only been mastered by a very few, for it is a language, too, which is always growing. The group of artists, numbering by now several hundred, known as McKim, Mead and White of New York, are amongst these few, as the great monograph of their work, recently published, shows. They not only know the complete language, but they themselves have added many phrases to it, such as the Boston Library, which ever since its erection has helped to form the true library character, just as the Opera House at Paris has formed the true opera house character. Perhaps modern conditions of architecture will tend towards the establishment of similar groups in England as that of McKim, Mead and White, whose work goes on with equal success, although McKim and White are long since dead, and Mead is now an old man. If so it will be a reversion to the ways in which the great cathedrals were built. In those days the architect as a separate personality had hardly emerged. In the future his personality may again be merged in that of the group, though he will now have to know a great deal more. While he may lose something as an individual, not only the world but he himself will gain a great deal. For the world the gain may be that the violent contrast and clash of the modern city may disappear. For the architect, instead of shutting himself up in his own office jealously guarding his ideas from his colleagues until executed, he will have the stimulus and criticism of a number of his equals. Of course occasionally the brilliant personal note, like that struck by the late E. A. Rickards, will be sounded. But on the whole I think the complexity of the business side of modern practice alone will tend to amalgamations among architects of similar knowledge and tastes, and these amalgamations will of themselves lead to a higher technical accomplishment, just as they have already done in America. In the days of ignorance, which in architecture followed the days of faith, it required little courage to be an individualist. Fools rushed in and built foolish buildings. In the days of knowledge which are to come, the individual will not be so anxious to exploit his own personality. Having the standards of all the past to go by, his first thought will be not to fall behind those standards. This alone is a sufficiently difficult task to make him feel the need of colleagues for help and criticism. It is a far happier and a more profitable state for most men to feel that they are part of a great movement than to be isolated prophets crying in the wilderness and using a language which no one understands.

Books Received.

- A History of French Architecture, from the death of Mazarin till the death of Louis XV—1661-1774. By Sir Reginald Blomfield, R.A., Litt.D., M.A., F.R.S. 2 Vols. 40. Lond. 1921. 244s. net. G. Bell & Sons, Ltd.
- Laboratories, their Planning and Fittings. By Alan E. Munby, M.A., F.R.I.B.A. Author of "The Chemistry of Building Materials." With an Historical Introduction by Sir Arthur E. Shirley, G.B.E., Sc.D., LL.D., F.R.S. 40. Lond. 1921. 25s. net. G. Bell & Sons, Ltd.

REVIEWS.

THE PHILOSOPHY OF AESTHETICS.

The Theory which are Subject to Regulation of the Visual Arts. By A. Tregshan Edwards, M.A. Oriel, [A.] Soc. Lond. 1921. 18s. net. (Philip Allan & Co., Quality Court.)

Every artist who takes his art seriously has longed at some period of his career to put into adequate language his confession of faith: to be able to explain himself and his art, and to confound his critics with ineluctable logic. Especially is this the case at the present time, essentially a period of searching criticism in which all professions are put to the test of reason. Unfortunately, all are not gifted with the divine gift of tongues, and though they may feel that as artists they fill a very real place in a civilised community, they have not the ability to state these reasons clearly and convincingly. Mr. Edwards has this gift of language, and he has triumphantly used it for the benefit of his fellow craftsmen.

To cover the whole range of the philosophy of aesthetics (as applied to the visible arts) in the way Mr. Edwards has essayed is a task of gigantic magnitude that might well intimidate the boldest. His book is intensely exciting, even provocative, and is one which will inevitably rouse a good deal of hostility. Very few people, Englishmen possibly less than most, care to be made to think against their will. After a time they may find the process stimulating, but the first effect is one of confusion and the second that of anger.

Mr. Edwards's book, with the deceitfully harmless appearance of its title, is like a bomb-shell dropped into a group of slumbrously inclined gentlemen, accustomed to take their leisure and their arts easily: so it is little wonder if the hastily awakened critics should display their annoyance in bull-like (one might almost write "John-Bull-like") roars of disgust.

The book is divided into three parts: the first part "The Hierarchy of the Arts"; the second, "Form and Subject"; the third, "The Human Agent."

In "The Hierarchy of the Arts," Mr. Edwards takes as his main theme the proposition that the happiness of the average man is the ultimate test of life and art, and that in so far as the arts promote this happiness, they are justified and to be encouraged. Mr. Edwards's contention that human beauty is the natural expression of human happiness, may come as a shock to this industrialised generation who have travelled so far from the Greek viewpoint. It is nevertheless, profoundly and indubitably true. That human beauty, manners and dress should be considered as arts at all, comes as a refreshing surprise to many of us who have been used to a rather narrow interpretation of the word.

The chapter on "Manners" is peculiarly delightful. It is written with a quiet humour that is as effective as it is disarming—before one is aware, the guard is down and the delicate rapier-thrust has gone home. It is when Mr. Edwards treats of sculpture and painting, which he describes as the minor arts, that he

appears to be on more debateable ground. True, we are not obliged to look at pictures or at sculpture, whilst we are forced to regard the architecture of our streets. Neither are we obliged to read poetry—though we must read the daily newspaper—nevertheless the poet may in his moment of exaltation give forth a truer message and one of greater value to the human race in a few short lines, than can whole reams of prose—though, let it be said, this is not used as an argument to excuse slipshod prose. Similarly, architecture may at its highest be as lyrical as any painting or piece of sculpture: but this does not detract from the value of sculpture and painting. Comparisons are odious and hierarchies are difficult of determination, but Mr. Edwards's selection serves a useful purpose if it will convince us that painting and sculpture can only suffer if they are to be petted and exalted at the expense of the other arts, in place of being contributory and complementary to them.

Probably to an architect the second portion of Mr. Edwards's book will not be so interesting or so convincing as the first and third parts—chiefly for the reason that the architect is more familiar with the subject. The chapter on "The Grammar of Design," which forms the greater part of the second section, is, nevertheless, well worth perusal even by the architect who is familiar with Guadet's teaching—he will find much to ponder and reflect on, though he may not agree with all the analogies and propositions set forth. What will particularly delight him is the way that those subtleties of design, which it is so much easier for him to feel than to explain, are hauled forth into the clear light of reason for the enlightenment of the lay mind.

After a good dose of the "Grammar," the most stubborn of Philistines would hesitate to proclaim that "he knew what he liked"—he might even be brought to the position of admitting that he knew very little, and that his likings, except so far as they were innate and not vocal, were of slight importance. Mr. Edwards omits nothing, he traverses the ground with an almost painful meticulousness, his rage for definitions is even at times a little wearisome: but it must not be forgotten that the author is addressing himself primarily to the general public: that is, to readers who will, for the most part, be entirely ignorant of the elements of design, let alone the grammar. Again, it must be remembered that Mr. Edwards writes as a philosopher: that is, one who accepts nothing without proof, and who applies the test of reason to every proposition. He defines his attitude in the closing sentence of the chapter on "Aspects of Subject" in these words: "Avoiding all intellectual hazard, I have confined myself to simple and obvious statements, not being ashamed to be as cautious as a mariner who would choose the safest possible route across dark and dangerous waters."

One word in warning. There are many, particularly at the present time, who are looking for recipes for design—some mathematical formulæ which shall take

the place of creative impulse—and such as these coming across the "Grammar of Design" may hail it as the royal road out of all their difficulties. This can never be. A man may have a perfect knowledge of English grammar, but yet be unable to write ten lines of original or helpful matter. Instinct, impulse and emotion (words which Mr. Edwards as a philosopher rather distrusts) are as real a part of humanity as intellect and reason. Reason at best can only be expressed in language, and language is too clumsy a vehicle to express all the aspirations and needs of mankind. Music, painting, sculpture and architecture all have a direct appeal, the whole of which cannot be put into words. This is why a man may be a great artist but a poor critic; or a great critic and no artist. It is when we come to communicate our ideas on art that we must employ the intellect and the reason, and it is in insisting on this that the writer of this book is especially helpful.

The third part of the book deals with the relations of the artist and various of his fellow men—the statesman, the engineer, the mathematician, the psychologist, the biologist, the historian, the moralist and the metaphysician. This portion of the book is not only very readable, but it is full of wisdom and good sense, much of which the artist would do well to think over and take to heart. This is what Mr. Edwards says in his chapter on "The Artist in Society":—

He is obliged to bear in mind that there are many absorbing occupations besides that of art, and men of powerful will are engaged in them, ambitious men, so anxious to extend their sway that they pay little heed to those who would assert a standard of values different from their own.

The artist, if he is to make a place for himself in the world, must not only be able successfully to contend with these his principal rivals, but he must also win the favour of the general public, the great mass of people who, although not leaders of opinion, are nevertheless the chief dispensers of patronage.

And he is to win this favour, not by tricks and cajolery, but by a firm insistence on principles. Convinced of his own importance to Society, he is to so comport and express himself that others shall be convinced also—a doctrine the good sense of which is obvious.

In "The Artist and Statesman," the question of nationality and design is dealt with in a singularly broad-minded and informing manner.

Dealing with "The Artist and the Engineer," Mr. Edwards has much to say that is extremely controversial. The school of thought which insists on the beauty of construction, pure and unadorned, will not be altogether pleased with the following: "That it is necessary to restrict his (the engineer's) influence will be obvious to many, since the opinion is widely held that mere construction does not suffice, and there is something ungracious about the work of an engineer, if it be not transformed into art."

Dealing with "The Artist and the Biologist," the author treats at length on the origin and definition of instinct, and the relating of it to reason. In reading this section of the book, one is tempted to quote and

to quote again; each one of its chapters could reasonably form the subject of a separate review. One particularly arresting sentence occurs in "Artist and Historian," this is: "The punishment which befalls those who cut themselves off from the past is that they can never be really modern, they can never make new conquests for the human spirit."

This defence of the traditional or historic method of approaching design is so convincing that its truth at once becomes apparent. There are buildings which have endured for ages, which still have about them the bloom of perennial youth; whilst obversely there are others erected but a few years, or it may be days, that look jaded and tired.

Although dealing with all the visible arts, the author, as is natural with an architect, has, perhaps, more to say about architecture than any of (to use his own words) the minor arts, and his brother architects will find in the pages of this book much that has for them a vital and peculiar significance. Throughout the appeal is to the reason and the intellect; and there is almost a passionate plea for the intellectual appreciation of beauty.

One cannot do better than to close this short and quite inadequate review with a further quotation from the author's own chapter entitled "Conclusion":—

And what of the doctrine that intellect has little to do with either the creation or the appreciation of beauty? History denies it. The arts have best flourished in periods when the reason was most active, and every artistic renaissance has been heralded by an intellectual renaissance. Those who would try to bring about an estrangement between intellect and beauty do an ill-service to the arts. If intellect is arraigned and made to suffer injury, then beauty will languish too, for intellect and beauty walk hand in hand.

STANLEY C. RAMSEY [F]

THE LIBRARY.

Notes by Members of the Literature Committee on Recent Acquisitions.

(These notes are published without prejudice, and further and more detailed criticism is invited.)

THE BUILDER'S JEWEL, or the Youth's Instructor and Workman's Remembrance. By Batty and Thomas Langley.

THE TREASURY OF DESIGNS, or the Art of Drawing and Working the Ornamental Parts of Architecture. By Batty Langley. [John Tinsley and Co., Maple Street, Tottenham Court Road.]

Two small volumes of reproductions, to a much reduced scale, of the illustrations in the 1741 and 1750 editions, of which the Library possesses copies. The *Treasury of Designs*, besides Palladio's Orders (the treatise on which is not republished here), has an interesting series of mantel-pieces and the like, designed by Batty Langley, a capable craftsman of his time, and well engraved by his brother Thomas. Both the Langleys were well-known teachers, and the Library collection includes several of their educational works, including the somewhat amusing work on the Five Orders of Gothic Architecture. C. H. T.

THE HANDBOOK OF ARCHITECTURAL PRACTICE.

4s. Washington. 31s. 6d. [American Institute of Architects, The Octagon House, Washington, D.C.]

A work issued by the American Institute of Architects and "intended as an aid to proper practice and efficient business administration." The earlier part deals with the relations between the architect and client, the methodical administration of the office, the letting of the contract, and the execution and supervision of the work. Its general counsel and its advice as to system are wise and reasonable, though put forward in such detail that the prefatory remarks by the authors themselves suggest that it is not likely that all the steps described in the book will be followed by a practising architect. The latter part contains among the Appendices a "Circular of Advice," dealing with professional conduct and canons of ethics, covering very much the same ground as the statement as to "Professional Conduct and Practice" recently put forward by the Council, and printed in the *Kalendar* this year for the first time. C. H. T.

LES GRANDS TRAVAUX DE LA VILLE DE LYON.

Par Tony Garnier, ancien pensionnaire de l'Académie de France à Rome. Fo. Paris. [Ch. Massin.]

"Enough of Renaissance façades or pavilions in a pseudo Louis XIV style! . . . The Parthenon is in itself admirable, but a modern copy of the Parthenon is merely absurd. An Exchange built like a temple is nonsense. . . . M. Tony Garnier has shown by his examples that architecture should be the expression of its country and its time." A short preface by the Maire, from which these words are taken, introduces M. Tony Garnier's brilliant set of designs for the remodelling of Lyons. M. Garnier is already known to us by his restoration of Tusculum. In these designs for Lyons he has interpreted the lessons of antiquity in their widest sense. Hospitals, schools, abattoirs, and industrial housing schemes are conceived in a monumental but simple manner. His architecture is the outcome of modern materials and a definite expression of the technical requirements of each building. Effect is obtained by simple lines and judicious arrangement of masses. Each of the 56 plates is intensely interesting. The design for La Bourse du Travail, with its flat roofs, square-headed windows and complete absence of columns, pediments, and cornices, is impressive as direct and simple building. Here are no schemes calculated to waste imaginary war indemnities. It is a valuable contribution to the solution of the problem of present-day architecture. H. C. B.

CHRONICLES OF THE CITY OF PERUGIA, 1492-1503.

Written by Francesco Matarazzo. Translated by E. S. Morgan. 8s. Lond. 1905. 3s. 6d. J. M. Dent.

This fascinating chronicle is an invaluable book to any student who wishes to understand the life and times of the Renaissance period in Italy. It is comparable with Benvenuto Cellini's autobiography, and though it does not directly deal with architecture it is an illuminating commentary on the conditions under which the great artists lived. It approximately covers the period of the Papacy of Alexander VI, the Borgias pope. J. H. W.

THE ARTS IN EARLY ENGLAND. By G. Baldwin Brown, M.A., Professor of Fine Art, University of Edinburgh. 8s. Lond. 1921. 30s. net. [John Murray.]

This book—one of a series—deals with Early Saxon remains, chiefly from Northumbria, of which it gives a most scholarly and complete account, with a valuable guide to the deciphering of the runes. C. E. S.

THE LAW AND PRACTICE WITH REGARD TO HOUSING IN ENGLAND AND WALES. By Sir Kingsley Wood, M.P. 80. Lond. 42s. net. [Henry Frowde, Oxford University Press.]

A comprehensive collection of the Acts of Parliament and other documents dealing with housing, with chapters on the powers and duties of local authorities, county councils, public utility societies, etc. The late Minister of Health contributes a preface in which he heartily recommends the book. A H M

MODERN PRACTICAL JOINERY. By George Ellis. 4th ed. La. So. Lond. 1920. 45s. [B. T. Batford, Ltd., 94, High Holborn, W.C.]

This useful book has been considerably enlarged and revised, especially with relation to machine-made joinery, shop fittings, and domestic fittings. There is also an increased amount of information on woods, and a selection has been made of those most suitable for joinery purposes. J. A. S.

PARTICOLARI DI ARCHITETTURA CLASSICA. Fo. Turin. £3 3s. [C. Crudo & C., via S. Francesco de Paola 11, Turin.]

This volume contains 91 plates of clearly reproduced measured drawings, from various sources, of architectural features—principally doors and windows—typical of the various styles that succeeded one another in Italy from the first to the eighteenth century, prefaced by a few Greek examples. W. H. W.

Note by a Member of the Science Committee.

HANDBOOK OF BUILDING CONSTRUCTION: Data for Architects, Designing and Constructing Engineers and Contractors. Compiled by a Staff of 46 Specialists. George A. Hool, Professor of Constructional Engineering, Wisconsin University, and Nathan C. Johnson. 2 vols., 1a. 80, New York, 1920. £3 net. [McGraw Hill Book Co., New York and London.]

This work, which is a new one, has been prepared under the direction of two editors by a staff of forty-six assistant editors, each dealing with a separate branch of the subject. The aim proposed, as stated in the Preface, is "to provide . . . a reference work covering thoroughly the design and construction of the principal kinds and types of modern building with their mechanical and electrical equipment." The two volumes contain, besides the Table of Contents and Index, 1,444 pages of closely printed letterpress freely interspersed with tabular matter, diagrams and illustrations. In addition to a very comprehensive treatment of all that usually comes within the scope of works on building construction, building materials and structural theory, distinct sections are devoted to estimating, contracts, specifications, heating, ventilation, water supply, sewage disposal, electrical equipment and lighting, gas, lifts, refrigeration, vacuum cleaning, house telephones, lightning protection and acoustics. The sections of a more theoretical character, consisting of as thorough a treatment of the subjects in hand as would be suitable in a work of this kind, should be of value to all who are called on to deal with building design; but in some sections, such as those dealing with practical constructional methods and even to some extent in the sections on materials, what is perhaps specially noticeable is the difference that exists between American conditions and practice and what is usual in this country. These volumes have been compiled primarily for American constructors. To serve an equally useful purpose

on this side of the Atlantic a good deal—except, as already stated, the more theoretical sections—would need to be considerably modified; but, on the other hand, constructors in any country do well to study foreign methods. There is always profit to be derived from considering the *modus operandi* of fellow craftsmen working on similar problems to our own but under different conditions.

JOHN H. MARKHAM [A.].

CORRESPONDENCE.

"Decently and in Order."

To the Editor, JOURNAL R.I.B.A.—

SIR,—Will you allow me to ventilate the subject of Special Committees appointed from time to time by the Council? The advent of these committees is generally made sufficiently known, but as far as my experience goes their demise is often shrouded in mystery likely to produce most erroneous impressions on members, and what is more important, on outside organisations. May I venture to cite two instances in the hope that it will be made clear by others that these are quite exceptional?

Some years ago now the Institute was approached from outside as to a standard specification for timber to assist contractors in fair estimating. The Council appointed a committee which met the Timber Trades Federation and the Master Builders at Conduit Street when I was rash enough to promise further conferences after the R.I.B.A. had considered the matter. This committee, after a good deal of work, presented a specification to the Council which was referred back, and as the committee did not feel able to alter its report, it formally resigned, and its resignation was accepted though its existence continued to be recorded in the *Kalendar* for some time. As far as I know no new committee was appointed nor were the outside bodies ever communicated with—the matter simply dropped into oblivion.

More recently a Research Committee (of Council)—the outcome of matters initiated by the Science Committee—was appointed, which got into touch with several important outside institutions and departments and pressed the need for building research in useful directions. Then, with a very proper wish to reduce committees, it was intimated that this work should be done by the Science Committee. This, of course, sacrificed the principle of continuity which, however, the Institute never seems to take as seriously as other corporate bodies. This Research Committee has never been formally wound up or asked for any report. Meantime one of its activities has matured, and with the very material help of, and in conjunction with, outside bodies, it now has a research—entirely the outcome of its own initiative—actually in progress on the corrosion of metal fittings used in the building industry, which is being carried on by a trained scientist at a cost of some £800 a year, which the Council has condoned by a contribution of £10, one of the members of the defunct committee being chairman of the com-

mittee controlling this research. It can now only report to the Science Committee, but as its members are not all members of this committee the position is very unsatisfactory and unbusinesslike. To anyone not in close touch with Conduit Street the impression is probably conveyed that a paper Research Committee was appointed which did nothing and was then privately buried. Surely every committee no longer wanted should be formally wound up and its report and the reasons for its demise should be printed in your JOURNAL, as much for the benefit of the Institute as for members individually, and I should value the opinions of your correspondents on the desirability of moving some resolution on the matter at one of our Business Meetings.—Yours, etc.,

ALAN E. MUNBY [F.].

Common Sense in Building Construction.

18th April 1921.

To the Editor, JOURNAL R.I.B.A. —

SIR,—The practical points which have been raised in this correspondence have not been without interest; nor, perhaps, without value. But before it is closed I should like to give the particulars which Mr. Robertson quite rightly demands of the basis upon which the scantling of the floor beams shown was determined. This will necessarily leave some minor points unanswered, which is unavoidable; the only reason for a further and, I hope, a last, intrusion on your space being the fact that the possibilities of very large aggregate economies would otherwise be left in doubt after severe criticism.

Possibly, also, it may serve to convince your correspondent who, on page 295 of the JOURNAL, refers to the Ministry of Health that the methods of calculation adopted are not only "in connection with recognised formulæ," but also in strict logical accordance with the Ministry's own regulations.

He will, I am assured, agree after further consideration that the Ministry's stipulation that alternative scantlings must be of equal area to those specified inevitably prevents any possible economies on individual joists, and might be altered with advantage to a stipulation of equal strength or equal stiffness.

Recognised formulæ for beams may shortly be summarised as rules whereby the working load is limited to that which will not stress the fibres beyond a certain limit, generally 1,000 lb., or about 9 cwt. per square inch, or cause a deflection of more than 1-500th of the span. One has a shrewd suspicion that the fibre stress has been limited by considerations of stiffness rather than those of safety. In America, where timber is comparatively plentiful, and is generally used somewhat liberally, the usual limit is about 1,500 lb. for fibre stress; whilst the deflection which is assumed to be dangerous to plaster ceilings is commonly specified in American text-books at 1-250th of the span.

Obviously, before any formula can be applied to a floor beam it is necessary to specify a reasonable average floor loading. The designer has three courses open

to him. He can (a) adopt the L.C.C. figure of 70 lb. per square foot (practically the $\frac{3}{4}$ cwt. recommended by Mr. Schneider in America in 1904), which, of course, covers all domestic floors including those of large rooms in which dances or sales could reasonably be expected. (b) He can ascertain the actual loading in typical small cottage bedrooms, reasonably well crowded; which will give a figure of about 15 to 20 lb., or he can (c) deduce the loading with which the Ministry of Health scantlings of individual floor joists are consistent.

The last-named course, being found to be reasonably consistent with (b), was adopted for the beams shown.

It is, of course, impossible to make an exact deduction from any schedule. It may be based upon either stiffness or strength, and the practical market sizes specified cannot agree exactly with theoretical requirements.

Fortunately, however, the limit of deflection of 1-40th inch per foot of span or span \div 500 is so generally accepted in this country as to be practically stereotyped; and the average value of the elastic modulus of fir is equally well established at about 1,600,000 lb. per square inch. When, therefore, it is found that each of the scantlings specified is the market size next above that which would produce this deflection under a load of 56 lb. per foot super, and that under that loading the stress on 2-inch joists is necessarily 817 lb. per square inch, it is obvious that this must be taken as the limit loading for the Ministry's joist scantlings.

But individual joists are liable to concentrated loads, shocks, etc., and these are equivalent to more than double the average loading over the whole floor, which is that which main beams are called upon to carry.

An average total loading of 28 lb. per foot super, over the whole floor is therefore clearly consistent with the Ministry code, and after allowing for the weight of floor joists, flooring and ceilings, this appears to represent very fairly the super. load on the floor of an ordinary bedroom rather crowded with heavy furniture.

Without troubling your readers with mathematics, it can be shown that the moment of inertia $\left(\frac{bd^3}{12}\right)$ required to keep within a limiting deflection of $\frac{\text{span}}{500}$ is

$BS^3 \div 60$ when B = the breadth in feet of floor carried and S = span in feet or $bd^3 \div BS^3 \div 5$.

In cases where the total cube of timber used is reduced by the use of main beams and the usual plaster ceiling (some 6 or 7 lb. per square foot) is also omitted, it would be consistent still further to reduce the loading; but this was not done in the floors shown.

Taking the criticised main beam in Fig. 2, page 193 of the JOURNAL of February 5th, the span measured to the edge of bearings over which it will deflect, and not as in steelwork on flexible cleats to the centre of bearings, is 10 feet 6 inches. The breadth (B) of floor

carried is 7.5 feet, and the distributed load is therefore $10.5 \times 7.5 \times \frac{1}{4}$, say 20 cwt. At 9 cwt. per square inch the safe load would be $\frac{bd^3}{S}$ or 23 cwt. Actually, test beams of the same scantling, of thoroughly bad timber, and 18 inches longer span failed under a distributed load of 112 cwt.

The moment of inertia of a 5 x 7 section is 142.9 or $bd^3 = 1.715$. The deflection = $\frac{5}{384} \cdot \frac{2.240 \times 126^3}{142.9 \times 1,600,000} = .26$ inch, or almost exactly span $\div 500$.

It is a very simple matter to tabulate, with the above short formula, the scantlings required for given spans or breadths of floor carried. If it be considered expedient to vary the loading of 28 lb., all that is necessary is to vary the divisor accordingly. Thus, for an average floor load of 56 lb. the formula becomes $bd^3 = BS^3 \div 2.5$, whilst divisors of 2 and 3 represent 70 and 45 lb. per square foot respectively.

If the economy of beamed floor construction is striking, no less so is its charm, which can readily be appreciated from the illustration to Sir Lawrence Weaver's paper on page 316 of the JOURNAL.

Is it too much to ask that the Ministry of Health, by a leaflet instruction, should authorise definite loadings and formulæ either for stiffness or strength, to which main beams should be designed.

This long correspondence has at least shown how wide a divergence of opinion is possible.—Yours, etc.,
PERCY J. WALDRAM, *Licentiate*.

COMPETITIONS.

Renfrew War Memorial.

Members and Licentiates must not take part in the above Competition because the Conditions are not in accordance with the published Regulations of the R.I.B.A. for Architectural Competitions.

Salisbury, Rothesay, Queensbury, Wick and Hagley War Memorials.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competitions are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment, and in the meantime Members and Licentiates are advised to take no part in the Competitions.

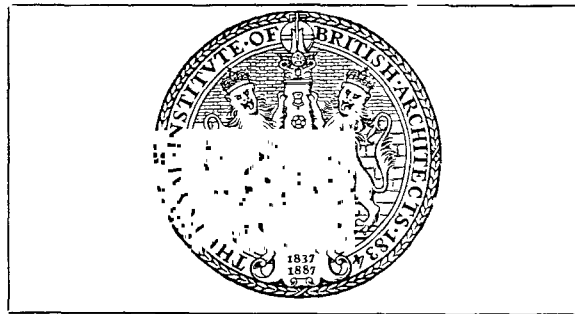
COMPETITIONS OPEN.

Qasr el 'Aini Hospital and School, Cairo.
Bengal Council Chamber.

Canadian Battlefields Memorials.

Chauny (Aisne), France : Drainage and Water Supply :
Inter-Allied Competition.

The conditions and other documents relating to the above Competitions may be consulted in the Library.



9 CONDUIT STREET, REGENT STREET, W., 7th May 1921.

CHRONICLE.

The Prince of Wales [*Hon. F.*]

At the Annual General Meeting on Monday, 2nd May, His Royal Highness the Prince of Wales was elected by acclamation *Honorary Fellow R.I.B.A.*

Postponement of the Annual Dinner.

In consequence of the industrial situation it has been necessary to postpone the Annual Dinner of the Institute and the Conference of the Franco-British Union of Architects until a date which will be announced later.

R.I.B.A. Public Lectures on Architecture.

The lectures hitherto delivered of the series initiated and arranged by the Literature Committee with the object of arousing a wider interest in architecture have been a marked success, both in the quality of the lectures and in the character of the audiences which have assembled to hear them. It may be claimed for the lectures already that they are justified by the result. The audiences have consisted very largely of members of the outside public of the class the Committee are especially anxious to attract. At Mr. Clutton Brock's lecture on April 28th, the Great Gallery was filled to overflowing, every seat and all available standing-room being occupied. His address, to which he had given the attractive title "Architecture as Everyone's Concern," was enlivened throughout with touches of humour which greatly charmed and delighted the assembly, and he held their interested attention every moment of the hour he was speaking. The President, Mr. John W. Simpson, who presided, pronounced it to be one of the most important and one of the most living discourses he had ever heard at the Institute. The lecturer, he said, summed up the whole gospel and marrow of the art of architecture in his insistence on the fact that architecture was "good building." Mr. Clutton Brock spoke only from notes, but a shorthand note was taken of his address, and it will be published with the others of the series at an early date.

Mr. F. C. Eden had an equally appreciative audience for his extremely interesting lecture, "Architecture and Travel," delivered on the 5th inst. Sir Aston Webb, P.R.A., presided, and again every seat was occupied. Mr. Eden warned his hearers that if archi-

ture is to be rationally enjoyed, they must be on their guard against much of the misleading criticism which was assumed by the text-books as axiomatic. He exhorted them to beware of books which laid down general laws or principles to which Architecture must conform under penalty of becoming "insincere," "imitative," or what not. The only principles he knew of were the three enumerated by the seventeenth century scholar, Sir Henry Wotton, and they covered the whole ground. "Well-building," he wrote, "hath three conditions: Commodity, Firmness, and Delight." The building must conform to practical requirements—that is what he means by "Commodity." It must obey mechanical laws—that is "Firmness." The third is the condition which makes architecture an art: it must satisfy man's love of beauty—that is "Delight." It is this quality of giving delight that we seek when on our travels and are free to treat architecture as a pastime. Touching upon the picturesque in architecture, the lecturer brought out that it did not arise from a jumble of incompatible elements, still less from ruin and decay. Looking down from the top of a tower on any old town that has escaped the heavy hand of modernism, the most striking element in the picture is the unity of the roofs—unity of pitch, unity of material, unity of colour. A slate or a galvanised-iron roof strikes a jarring note: still more so does a ruined roof, with the tiles fallen in and the skeleton showing. Dilapidation is never picturesque. As an object-lesson in town-planning, the lecturer showed lantern slides of some charming old Italian piazzas, casual and irregular looking, but which, by the comparison of two or three examples, disclosed some common principle of arrangement, pointing to the conclusion that accident had not contributed so largely to their attractiveness as appeared at first sight. Finally, by means of the lantern, the audience were taken a short architectural tour through a part of Italy which the lecturer said was not remarkable for any great contribution to the arts, but where could be seen the sort of thing any traveller in Italian by-ways might come across—just, in fact, what Italy of her careless abundance spills as it were by the roadside. After a visit to Pesio, the party were taken a turn up the Valley of the Dora, to the west of Turin as far as the Sagra di San Michele; then in a north-easterly direction to Biella, at the foot of the Pennines, to visit a group of sanctuaries, Oropa, and the Sacro Monte of Varallo, Orta and Varese, finishing at the Lakes.

R.I.B.A. Prizes and Studentships, 1921-1922.

The ESSAY SILVER MEDAL and £26 5s. open to British subjects under the age of forty, will be awarded for the best Essay on a subject of architectural interest, the choice of which is left to the competitor. Competitors are expected to make a useful contribution to knowledge by accurate research so that the Essays may be accepted as authoritative statements on the subjects dealt with. Candidates in the Final Examination competing for this Prize may submit their Essay as the Thesis required under the Revised Syllabus.

The SOANE MEDALLION AND £150 (Travelling Studentship) open to British subjects under the age of thirty, for the best Design for a Central Group of Buildings for a modern non-residential University, comprising Convocation Hall, Senate and Faculty Rooms, Robing Rooms, and a Lecture Theatre. The building to be conceived as the centre of a group of university buildings which accommodate 6 Faculties.

The PUGIN TRAVELLING STUDENTSHIP SILVER MEDAL and £75—for the study of the Mediæval Architecture of Great Britain and Ireland, open to architects of any country between the ages of eighteen and twenty-five, who submit the best selection of drawings and testimonials.

The OWEN JONES TRAVELLING STUDENTSHIP, value £100, open to architects under the age of thirty-five. Competitors must submit testimonials, with drawings, some of which must be from existing buildings and from other examples, exhibiting their acquaintance with colour decoration and with the leading subjects treated of in Owen Jones's *Grammar of Ornament*, together with an architectural design treated in colour decoration.

The HENRY SAXON SNELL PRIZE, value £50, open to architects (who may associate with themselves members of the medical profession), for the best Design for an Asylum for 200 Aged and Infirm Poor.

The HENRY JARVIS TRAVELLING STUDENTSHIP, value £250 a year, tenable for two years at the new British School at Rome. Candidates must be under the age of thirty, and either Associates or registered Students of the Institute.

The GRISSELL PRIZE for DESIGN and CONSTRUCTION, consisting of a Gold Medal and £50, open to British subjects who have not been in professional practice more than ten years, will be awarded for the best Design for a Mooring Mast for an Airship in connection with an hotel accommodating 50 passengers.

The ARTHUR CATES PRIZE, value £30, open to students who have passed the R.I.B.A. Final Examination, and awarded for the best set of drawings comprising studies of subjects of Classical or Renaissance and Mediæval Architecture, and also detailed studies in relation to the application of geometry to vaulting and stability of edifice.

The ASHPFEL PRIZE (£10 in books), awarded to the Student who has the most highly distinguished himself in the Final Examination of the year.

The following Prizes and Studentships will be offered in the Competitions for 1922-23:—

The TITE PRIZE—Certificate and £100

The GODWIN BURSARY and WIMPERIS BEQUEST—Silver Medal and £130.

The R.I.B.A. SILVER MEDAL and £50 for MEASURED DRAWINGS.

The Pamphlet containing full particulars of the Prizes and Studentships, together with the Conditions of Competition and Award and General Advice to Architectural Students, may be obtained at the Office of the Institute, price 6d., by post 8d.

**Notes from the Minutes of the Council Meeting,
2nd May 1921.**

Unification and Registration.—At a special meeting the Council considered the Report of the Unification Sub-Committee and advised the representatives of the Royal Institute in view of the meeting of the Unification Committee on 12th May.

The Office of Works.—The Council approved a recommendation from the R.I.B.A. Office of Works Committee that a deputation should be sent to the First Commissioner of Works.

The Scale of Fees for Housing Schemes.—It was reported that the Director-General of Housing, Sir Charles Ruthen, had consented to receive a deputation to discuss all outstanding questions connected with the scale of fees for housing schemes.

The Ken Wood Preservation Council.—The President was appointed to represent the Royal Institute on the Ken Wood Preservation Council.

The Honorary Associateship.—The Council directed the Secretary to summon a Special General Meeting to consider the proposed alterations in the by-laws affecting Honorary Associates.

Rapid Testing of Steel and other Metals.—The Council approved a recommendation of the Science Standing Committee that a demonstration should be made at a General Meeting of the Royal Institute of a new machine for rapidly testing steel and other metals.

Appointment of Examiners.—On the recommendation of the Board of Architectural Education the Council appointed the examiners for the June examinations.

The Annual Dinner and Conference of the Franco-British Union of Architects.—In view of the industrial situation it was decided to leave in the hands of the President the question of postponing the Annual Dinner and the Conference of the Franco-British Union of Architects.

Grants to Private Builders.

The following memorandum, dated 28th April, has been issued by the Ministry of Health :—

In General Housing Memorandum No. 41 which was issued in December last, local authorities were notified that in consequence of the rejection of the Ministry of Health (Miscellaneous Provisions) Bill, it would not be possible under the existing law to pay the full amount of the subsidy under the Subsidy to Private Builders Scheme in respect of houses completed during the early months of 1921, and that it would be necessary for local authorities to discontinue the issue of Certificate A as from 23rd December. An undertaking was, however, given on behalf of the Government that legislation would be introduced at the beginning of the present session of Parliament to provide for payments in full to those completing houses between 23rd December 1920 and the date of the coming into operation of the new Act, and to extend the period during which the subsidy can be earned. In accordance with this undertaking the Government have introduced a Bill for the purposes above mentioned, and it is hoped that this Bill will

become law at an early date. In the meantime local authorities will, of course, have no authority to issue Certificate B in respect of houses completed after 23rd April 1921. Local authorities should, however, examine any applications which are made for the issue of Certificate B, and if they are in order should inform the applicant accordingly, and that Certificate B will be issued as soon as Parliament has granted the necessary powers.

The Building Exhibition, Olympia.

The President, Mr. JOHN W. SIMPSON, presided at the dinner given by the Architects' Welcome Club at the Building Exhibition, Olympia, on the 22nd inst. Proposing the toast of "The Building Exhibition," he congratulated Mr. Greville Montgomery on the great success of this year's Exhibition; the best, he thought, which had been held since the exhibitions were started some twenty-five years ago. Referring to the visit of the King and Queen,* he said that, despite the trying times, despite mischievous and dangerous propaganda in certain parts, the people of the country remained steadily loyal to the Crown. It could hardly be said that the prosperity of the building industry had been restored, but it showed clear signs of recovery. There was a better output by the operatives, and that better output was at once reflected in lower prices. Architects, surveyors, builders, and operatives were naturally anxious to do their best for the building industry, since they were all affected by its prosperity and all lived by it. But their efforts at reviving the industry could be of little use whilst the east wind of high costs prevailed and withered the good intentions of the building owner. It was curious that those who promoted strikes did not recognise their inevitable futility; a strike was a weapon that injured first and foremost those who used it by creating unemployment. Amongst the means of improving the building industry he placed the Building Exhibition very high for two reasons: (1) the general public was extremely interested in building, building materials, and the processes of building, and the Exhibition fostered and encouraged that healthy interest; (2) because publicity was essential to commerce, and there was no publicity equal to that afforded by a well-organised exhibition. The gathering that evening comprised many architects from different camps, and would hardly have been possible two years ago. It was an excellent augury for the unity of the great profession that many had at heart. He congratulated his fellow President, Sir Charles Ruthen, and the country also, on his appointment as Director of Housing. That appointment would be fruitful of the most beneficial results not only to architects but also to the taxpayers.

Mr. H. GREVILLE MONTGOMERY, in responding, said the ready response made by the King to the invitation to visit the Exhibition showed a fine business capacity that many architects might emulate with advantage. It would be a good idea if the Architectural Association were to incorporate business training in its curriculum. He was very glad to think the Exhibition had done something to help to bring about the unification of the profession that was so desirable.

Sir CHARLES RUTHEN [F.R.S.E.], President of the Society of Architects, proposing "The Guests," said he saw no reason

* His Majesty, accompanied by the Queen, the Duke of York, Princess Mary and Prince Henry, made the tour of the Exhibition under the guidance of the President. The Royal party spent over two hours going the round of the stands and were greatly interested in the exhibits.

why architects who followed Mr. Simpson and himself should not work harmoniously together, as he and Mr. Simpson had done. They had both done their best for the profession, and if success did not immediately follow it would not be the fault of the Presidents of the Institute and the Society. If the country had fully realised the importance of the building industry to industrial development in the years gone by he believed much of the present industrial unrest would not have come about. If the people had reasonable conditions of living, not only would they be better craftsmen but they would also give a better output. It was very unfortunate, and typically British, that one of the greatest social problems—housing—had been left to come up for solution immediately after one of the greatest upheavals the world had ever seen. But he believed the difficulties would be surmounted, as the country had surmounted big difficulties in the past, and eventually the working classes would once more be happy and comfortable. Architects, quantity surveyors, builders, and concrete engineers should all work harmoniously together in order to get the building industry into a thoroughly satisfactory condition.

Mr. A. J. FORSDIKE, President of the National Federation of Building Trades Employers, who responded, said those present that evening represented a very powerful combination, covering as they did every branch of the building industry, and with such a combination working together in harmony anything might be accomplished. A great change had come about in the building industry during the past few years, and those who carried out the actual building operations were now able to get into closer touch with architects and quantity surveyors than ever before. The building employers of the country felt much indebted to the architects for the steps they had taken in that direction, and were quite as anxious as they for closer co-operation. The best results could only be obtained by the close relationship of all concerned.

Mr. J. W. LOBDEY, M.P., in proposing the health of the Chairman, said in his opinion modern architects were doing work as good in every respect as the architects of the past, and perhaps even better, but they were considerably handicapped by the high cost of building. The time had come when architects, builders, and operatives must pull together.*

The Annual Elections : New Nominations to Council and Committees.

The following nominations have been made by members in accordance with By-law 33 :—

As Vice-President.

DOWNING : HENRY PHILIP BURKE, F.S.A. [F.]. Nominated by Wm. A. Pite, Sydney Tatchell, Alan E. Munby, Leslie T. Moore, Edward Maufe, Albert W. Hall, Austin Duist, W. Howard Seth-Smith, T. P. Figgis, *Fellows*; A. Needham Wilson, Robt. W. Pite, *Associates*.

HUBBARD : GEORGE, F.S.A. [F.]. Nominated by Alfred W. S. Cross, Wm. Woodward, W. Gullbee Scott, Herbert A. Satchell, Max Clarke, *Fellows*; Chas. A. Daubney, K. Gammell, *Associates*.

SEARLES-WOOD : HERBERT DUNCAN [F.]. Nominated by Delissa Joseph, William A. Pite, Sir Henry Tanner, Lewis Solomon, A. H. Kersey, Ernest Flint, Percival M. Fraser, *Fellows*.

As Members of Council.

FYFE : THEODORE [F.]. Nominated by H. Austen Hall, James S. Gibson, W. B. Simpson, W. S. A. Gordon, W. Curtis Green, *Fellows*; Herbert Passmore, H. C. Brown, *Associates*.

GILL : CHARLES LOVETT [F.]. Nominated by A. E. Richardson, Stanley C. Ramsey, S. D. Adshad, Arthur Stratton, Martin S. Briggs, *Fellows*; E. B. Musman, W. Harding Thompson, *Associates*.

JOSEPH : DELISSA [F.]. Nominated by H. D. Searles-Wood, Walter J. Burrows, F. T. W. Goldsmith, F. Adams Smith, Henry T. Gordon, R. M. Roe, *Fellows*; Chas. A. Daubney, *Associates*.

MUNBY : ALAN EDWARD, M.A. Cantab. [F.]. Nominated by W. A. Pite, T. P. Figgis, R. Unwin, H. D. Searles-Wood, George Hubbard, Herbert W. Wills, *Fellows*; A. Needham Wilson, *Associates*.

SCOTT : WILLIAM GILLBEE [F.]. Nominated by W. Henry White, Herbert A. Satchell, Wm. G. Hunt, Alfred W. S. Cross, Wm. Woodward, *Fellows*; Horace Cubitt, K. Gammell, *Associates*.

WILLS : HERBERT WINKLER [F.]. Nominated by Alfred W. S. Cross, George Hubbard, S. D. Adshad, Sydney Tatchell, *Fellows*; Patrick Abercrombie, Horace Cubitt, Herbert A. Welch, *Associates*.

As Associate Members of Council.

BUCKNELL : LEONARD HOLCOMBE [A.]. Nominated by H. Austen Hall, Robt. Atkinson, E. Stanley Hall, Ernest Newton, *Fellows*; William G. Newton, G. D. Gordon Hake, W. T. W. Chung, *Associates*.

BUDDEN : LIONEL BAILEY, M.A. [A.]. Nominated by Alfred W. S. Cross, George Hubbard, S. D. Adshad, James S. Gibson, Sydney Perks, *Fellows*; Patrick Abercrombie, Horace Cubitt, *Associates*.

HAKE : GUY DONNE GORDON [A.]. Nominated by H. Austen Hall, Hugh P. G. Maule, W. H. Ward, Robt. Atkinson, *Fellows*; L. H. Bucknell, R. A. Duncan, C. H. James, *Associates*.

SHEPPARD : ARTHUR WILLIAM [A.]. Nominated by G. Topham Forrest, Maurice E. Webb, W. E. Raley, Fredk. R. Horns, *Fellows*; E. P. Wheeler, Chas. McLachlan, W. T. Curtis, *Associates*.

As Member of the Art Committee.

ADSHAD : PROFESSOR STANLEY DAVENPORT, M.A. [F.]. Nominated by Stanley C. Ramsey, Professor A. E. Richardson, Arthur Stratton, C. Lovett Gill, D. Barclay Niven, *Fellows*; W. Harding Thompson, E. B. Musman, *Associates*.

As Member of the Literature Committee.

STRATTON : ARTHUR, F.S.A. [F.]. Nominated by W. H. Ward, Theodore Fyfe, Martin S. Briggs, H. Austen Hall, H. H. Statham, Louis Ambler, *Fellows*; J. Alan Slater, *Associates*.

As Associate Member of the Literature Committee.

ANSELL : WILLIAM HENRY, M.C. [A.]. Nominated by Theodore Fyfe, W. H. Ward, Martin S. Briggs, H. Austen Hall, Matthew Dawson, Ernest Newton, Maxwell Ayrton, F. W. Troup, Winton Newman, Henry V. Ashley, *Fellows*.

BIRNSTINGL : HARRY JOSEPH [A.]. Nominated by Frank M. Elgood, Guy Church, Stanley C. Ramsey, Fredk. Chatterton, R. Allsebrook Hinds, *Fellows*; Ralph W. Thorp, J. H. Belfrage, *Associates*.

As Members of the Practice Committee.

COLLARD : ALLAN OVENDEN [F.]. Nominated by Sir Banister Fletcher, Ernest S. Gale, Alex. P. Durlacher, George A. Lansdown, C. H. B. Quennell, *Fellows*; Bernard W. H. Scott, Wm. E. A. Brown, *Associates*.

LOVEGROVE : GILBERT HENRY [F.]. Nominated by R. Elsey Smith, Sydney Perks, Francis J. Sturdy, Arthur F. Usher, *Fellows*; R. H. J. Mayhew, H. McLachlan, Henry Lovegrove, Joseph Hill, *Associates*.

* Our acknowledgments are tendered to *The Builder* for the report of these speeches.

NICHOLAS: CHARLES [F.]. Nominated by J. E. Dixon-Spaul, Owen C. Little, Henry J. Chetwood, Basil Oliver, *Fellows*; Eustace Corrie Frere, Ian B. M. Hamilton, Kenneth S. Broad, *Associates*.

As Associate Members of the Practice Committee.

COCKRILL: GILBERT SCOTT [A.]. Nominated by Major Harry Barnes, Sir Henry Tanner, R. J. Williams, R. J. Thomson, Leslie Mansfield, *Fellows*; K. A. Cockrill, C. Wilfrid Box, Alex. G. Bond, *Associates*.

HAMLIN: WILLIAM HENRY [A.]. Nominated by Alfred W. S. Cross, W. Gillbee Scott, Fredk. R. Hiorns, Henry Hyams, *Fellows*; H. V. Milnes Emerson, H. Haylock Golding, K. Gammell, *Associates*.

JELLEY: FREDERICK RICHARD [A.]. Nominated by Alfred W. S. Cross, W. Gillbee Scott, Fredk. R. Hiorns, Henry Hyams, *Fellows*; H. V. Milnes Emerson, H. Haylock Golding, K. Gammell, *Associates*.

Attendances at Council and Standing Committee Meetings, 1920-1921.

COUNCIL (16 meetings).

John W. Simpson, *President*, 15; Walter Cave, *Vice-President*, 7; E. Guy Dawber, *Vice-President*, 14; Prof. S. D. Adshead, *Vice-President*, 10; A. W. S. Cross, *Vice-President*, 13; Sir Reginald Blomfield, *Past-President*, 1; Arthur Keen, *Hon. Secretary*, 16.

Members of Council.—Robert Atkinson, 7; Major Harry Barnes, M.P., 3; Max Clarke, 10; H. P. Burke Downing, 15; Sir Bamster Fletcher, 13; H. M. Fletcher, 11; James S. Gibson, 11; W. Curtis Green, 12; E. Stanley Hall, 13; E. Vincent Harris, 10; George Hubbard, 14; H. V. Lanchester, 2; T. Geoffrey Lucas, 8; Sir Edwin Lutyens, 3; Sydney Perks, 15; W. E. Riley, 16; Paul Waterhouse, 10; Maurice E. Webb, 12.

Associate Members of Council.—Prof. Patrick Abercrombie, 2; Horace W. Cubitt, 14; W. G. Newton, 13; Stanley H. Hamp, 9; J. Stockdale Harrison, 4; Digby L. Solomon, 15.

Representatives of Allied Societies.—H. T. Buckland, 8; C. S. Errington, 2; C. B. Flockton, 9; J. Alfred Gotch, 2; A. W. Hennings, 9; Llewellyn Kitchen, 5; T. Taliesin Rees, 7; George Watt, 0; W. B. Whitie, 6.

Representative of Architectural Association.—G. Gilbert Scott, 1.

STANDING COMMITTEES.

Art (6 Meetings).—*Fellows*: Ernest Newton, 0; Walter Cave, 2; H. P. Burke Downing, 2; W. A. Forsyth, 2; J. Alfred Gotch, 1; S. K. Greenslade, 0; J. J. Joass, 2; Prof. F. M. Simpson, 3; Walter Tapper, 5; Maurice E. Webb, 5. *Associates*: W. R. Davidge, 1; H. S. East, 0; J. B. Fulton, 0; Edwin Gunn, 0; L. Rome Guthrie, 0; P. W. Lovell, 5. *Appointed by Council*: Sir Edwin Lutyens, 0; H. V. Lanchester, 0; F. R. Hiorns, 6; J. D. Coleridge, 5; Alfred Cox, 5.

Literature (8 Meetings).—*Fellows*: Louis Ambler, 7; M. S. Briggs, 4; Major H. C. Corlette, 7; E. Guy Dawber, 0; H. M. Fletcher, 6; H. Austen Hall, 3; H. H. Statham, 5; C. Harrison Townsend, 8; W. Henry Ward, 7; P. Leslie Waterhouse, 5. *Associates*: H. Chalton Bradshaw, 3; A. T. Edwards, 4; A. H. Moberly, 8; Herbert Passmore, 1; J. Alan Slater, 8; J. H. Worthington, 2. *Appointed by Council*: D. Theodore Fyfe, 6; C. E. Sayer, 5; T. S. Attlee, 0; Miss Ethel Charles, 6; Major Harry Barnes, M.P., 0.

Practice (11 Meetings).—*Fellows*: H. V. Ashley, 7; Max Clarke, 10; A. W. S. Cross, 9; W. G. Hunt, 10; Sydney Perks, 7; W. Gillbee Scott, 8; John Slater, 4; F. W. Troup, 3; W. Henry White, 7; Wm. Woodward, 8. *Associates*: Horace Cubitt, 11; H. V. M. Emerson, 10; K. Gammell, 7; H. H. Golding, 5; C. E. Hutchinson, 4; Chas. McLachlan, 5. *Appointed by Council*: H. A. Satchell, 9; Delissa Joseph, 7; Arthur Keen, 3; Herbert A. Welch, 9; G. Topham Forrest, 3.

Science (8 Meetings).—*Fellows*: Prof. S. D. Adshead, 1;

J. Ernest Franck, 8; George Hornblower, 0; George Hubbard, 0; Alan E. Munby, 8; Henry A. Saul, 5; H. D. Searles-Wood, 6. *Associates*: C. A. Daubney, 8; P. W. Hubbard, 3; J. N. Markham, 3; Herbert Shepherd, 5; Digby L. Solomon, 2; T. F. Hansford White, 1. *Appointed by Council*: Sir Charles Ruthen, 0; Arthur Ashbridge, 0; R. Stephen Ayling, 1; Felix Clay, 2; Robert Angel, 4; W. E. Riley, 2; Michael Waterhouse, 1; Charles Woodward, 7.

MINUTES. XIII.

At the Annual General Meeting (being the Thirteenth General Meeting of the Session 1920-21) held Monday, 2nd May, 1921, at 8 p.m.—Present: Mr. John W. Simpson, *President*, in the Chair; 31 *Fellows* (including 13 members of the Council) and 28 *Associates* (including 3 members of the Council), the Minutes of the meeting held 18th April, having been published in the JOURNAL, were taken as read and signed as correct.

The Hon. Secretary announced the decease of the following members:—Stanislas Louis Bernier, of Paris, *Hon. Corresponding Member*, elected 1912; William Alphonsus Scott, Professor of Architecture in the National University of Ireland, *Associate*, elected 1899; George Lay Crickmay, *Fellow*, elected 1888; John Henry Phillips, of Cardiff, *Fellow*, elected 1904.

On the motion of the Hon. Secretary it was RESOLVED that the regrets of the Institute for the loss of these members be recorded on the Minutes of the meeting.

The following *Associates* attending for the first time since their election were formally admitted by the President:—Leslie Owen Ross and Ion Beresford Pite.

The Secretary announced the names of candidates nominated for election.*

The election of HIS ROYAL HIGHNESS THE PRINCE OF WALES as HONORARY FELLOW was carried by acclamation.

The President formally presented the Report of the Council for the official year 1920-21 and briefly reviewed the work of the Institute during that period.

At the request of the President, representatives of the Board of Architectural Education, the four Standing Committees and other Committees whose proceedings are included in the Report addressed the meeting on matters that had engaged their special consideration, Professor Beresford Pite [F.] speaking for the Board of Education, Mr. Walter Tapper [F.] for the Art Committee, Major H. C. Corlette, O.B.E. [F.], for the Literature Committee, Mr. A. W. S. Cross [F.] for the Practice Committee, Mr. Alan E. Munby [F.] for the Science Committee, Mr. W. G. Wilson [F.] for the Competitions Committee, Mr. Sydney Perks [F.] for the Finance Committee, and Mr. W. R. Davidge [A.] for the Town Planning Committee.†

The President having moved the adoption of the Report and invited discussion upon it, the Hon. Secretary seconded the motion, and Mr. Wm. Woodward [F.] briefly reviewed the report and spoke appreciatively of the staff and of the indebtedness of the Institute to the President for his distinguished services to the profession during his tenure of the Chair.

Mr. John Slater [F.] and Mr. Herbert A. Welch [F.] also addressed the meeting.

The motion having been put from the Chair, it was

RESOLVED, unanimously, that the Report of the Council for the official year 1920-1921 be approved and adopted.

Upon the motion of Mr. Woodward, seconded by Mr. Sydney Perks, a vote of thanks was passed by acclamation to Mr. Harold Goslett [F.] and Mr. C. E. Hutchinson [A.] for their services as Auditors, and Mr. John Hudson [F.]

* The names were published in the JOURNAL for 9th April, p. 340, and again in the present issue, with the names of the proposers, on p. 404.

† A brief résumé of their remarks and of the ensuing discussion will appear in the next issue.

and Mr. A. W. Sheppard [A.] were nominated Auditors for the ensuing year of office.

The proceedings closed and the meeting separated at 10 p.m.

Appointment.

The Worshipful Company of Ironmongers have appointed Mr. Sydney Tatchell [F.], of the firm of Messrs. Bouchier, Tatchell and Galsworthy, as their surveyor.

NOTICES.

Business Meeting 6th June 1921.

An election of members will take place at the Business General Meeting, Monday, 6th June. The names and addresses of the candidates (with the names of their proposers), found by the Council to be eligible and qualified for membership according to the Charter and By-laws and recommended by them for election, are as follows:—

AS FELLOWS (6).

- BIDLAKE: WILLIAM HENRY, M.A. Cantab. [A. 1888], 37 Waterloo Street, Birmingham, and 72 Pershore Road, Edgbaston, Birmingham. Proposed by E. Guy Dawber, F.S.A., John W. Simpson, C. E. Bateman.
- HILL: JOSEPH [A. 1913], 45 Finsbury Pavement, E.C.2. and 21 Surbiton Hill Park, Surbiton, Surrey. Proposed by James S. Gibson, E. Guy Dawber, F.S.A., Francis J. Sturdy.
- JOHNSON: GEORGE ALFRED [A. 1905], 2 Siking Road, Shanghai. Proposed by Henry Tanner, Alfred Cox, Louis Ambler.
- MILLARD: WALTER JOHN NASH [A. 1885], Dell View, Hitchin, Herts. Proposed by John W. Simpson, Leonard Stokes, Frank T. Baggallay.
- SIMPSON: CECIL HAMILTON [A. 1909], 24 Bloomsbury Square, W.C., and 48 Luttrell Avenue, Putney, S.W.15. Proposed by William A. Pite, Harry Redfern, E. Vincent Harris.
- SINCLAIR: WILLIAM BRAXTON [A. 1912], Council Offices, New Malden, Surrey, and Cranford, The Crescent, Sidecup, Kent. Proposed by Edgar S. Underwood, W. E. Riley, Leslie Mansfield.

AS ASSOCIATES (19).

- BARRY: CARYL ARTHUR RANSOME [S. 1912—*Special War Exemption*], Parliament Mansions, Victoria Street, S.W.1. Proposed by James Ransome, Arthur Blomfield, W. Campbell Jones.
- BENNET: JAMES SPALDING [S. 1920—*Special War Exemption*], 156 Braid Road, Edinburgh. Proposed by John Watson, John Wilson, H. O. Tarbolton.
- BIDDULPH-PINCHARD: CHARLES HENRY [Special War Exemption], 9 Staple Inn, Holborn. Proposed by Louis Ambler, Paul Waterhouse, W. A. Forsyth.
- *BRODIE: JAMES [S. 1909—*Special War Exemption*], 3 Palace View, Fulford, York. Proposed by Walter H. Brierley, James Miller, H. O. Tarbolton.
- BURNET: FRANK RUSSELL [S. 1920—*Special War Exemption*], Rughoun, Kilmacolm, N.B. Proposed by Wm. B. White, John Keppie, George A. Boswell.
- CHANT: ARTHUR GUY, P.A.S.I. [Special War Exemption], 35 Spencer Street, Carlisle. Proposed by Joseph Forster, J. H. Martindale, J. W. Benwell.
- *COOPER: FREDERIC ROLAND [S. 1908—*Special War Exemption*], Southdown Headlands, Kettering. Proposed by Albert E. Sawday, J. Alfred Gotch, F.S.A., and the Council.
- FORBES: ARTHUR B. [Special War Exemption], 250 Wilson Ave., N.D.G., Montreal. Proposed by Professor Percy Nobbs, F.S. Baker, Philip J. Turner.
- LUNAN: LESLIE GORDON [Special War Exemption], c/o H. V. Lanchester, Esq., 1 Abbot Road, Lucknow. Proposed by D. Barclay Niven, Herbert Wigglesworth, Geoffrey Lucas.

- MC CONNELL: LEONARD [Special War Exemption], 34 Bedford Square, W.C.1. Proposed by Herbert Baker, Franklin K. Kendall, Robert Atkinson.
- MC EVERS: HAROLD ERIC [Special War Exemption], 393 Mountain Street, Montreal, Canada. Proposed by Philip J. Turner, Professor Percy Nobbs, William Carless, O.B.E.
- MAE: THOMAS HENRY [Special War Exemption], 2057 Hutchison Street, Montreal. Proposed by Professor Percy Nobbs, Philip J. Turner, Kenneth G. Rea.
- MERRILL: ALFRED [Special War Exemption], 249 Manor Lane, Lee, S.E.12. Proposed by Robert Atkinson, E. Stanley Hall, C. E. Varndell.
- MILNE: JAMES [S. 1920—*Special War Exemption*], 39 Smith Street, Hillhead, Glasgow. Proposed by Robert Miller, Andrew Black, John Keppie, A.R.S.A.
- RAY: ARTHUR GORDON [Special War Exemption], 495 Lansdowne Ave., Westmount, Quebec. Proposed by Geo. A. Ross, Philip J. Turner, William Carless.
- TURNBULL: BERNARD WILLIAM [Special War Exemption], 8 Camden Road, N.W.1. Proposed by Sir John J. Burnet, A.R.A., Robert Atkinson, Guy Church.
- WEBB: JOHN ADAMS [S. 1914—*Special War Exemption*], Burton Hill, Melton Mowbray. Proposed by A. E. Sawday, Arthur Wakerley, Howard H. Thomson.
- WEEKES: NORMAN BARNETT, F.S.I. [Special War Exemption], Housing Department, Town Hall, Rochdale. Proposed by Professor S. D. Adhead, P. W. Hathaway and the Council.
- YOUNG: THOMAS PEACH WEIR [S. 1920—*Special War Exemption*], c/o P. MacGregor Chalmers, Esq., 95 Bath Street, Glasgow. Proposed by Alexander N. Paterson, A.R.S.A., W. Hunter McNab, John Keppie, A.R.S.A.

NOTE.—The two candidates marked * have been the subject of special consideration by the Council, being put forward as special cases in accordance with recommendations Nos. 2, 3 and 4 passed at the Conference with representatives of Allied Societies on 19th January 1920, and unanimously approved by the Council on 2nd February 1920.

The Royal Gold Medallist (Architecture) 1920.

A collection of photographs illustrating the work of Monsieur Charles L. Graunt, of Paris, Royal Gold Medallist 1920, is now being exhibited in the Galleries of the Royal Institute, 9 Conduit Street, W. The Exhibition is open to the public.

Paper on Cinema Design, 23rd May.

THE FOURTEENTH GENERAL MEETING of the Session will be held Monday, 23rd May, 1921, at 8 p.m., for the following purposes:—

To read the Minutes of the Meeting held 2nd May: formally to admit members attending for the first time since their election.

To read the following Paper:—

CINEMA DESIGN. By ROBERT ATKINSON [F.].

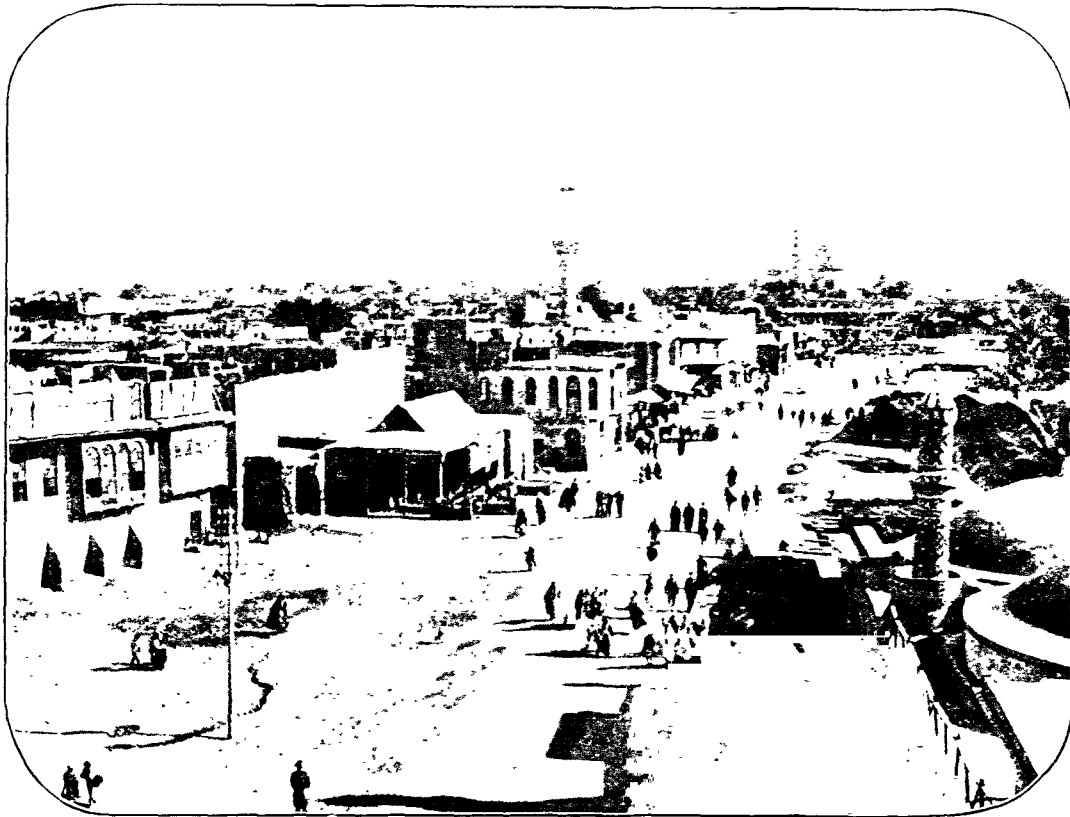
ARCHITECT'S Drawing Desk with two Double Elephant Drawers and two smaller ditto and cupboard, also Drawing Boards, T-squares, etc., stools and other office furniture for sale cheap owing to expiration of tenancy. Apply to Messrs. Houston & RIBA, 4a, Bloomsbury Square, W.C.1.

MR. L. C. P. ALLEN, Student, of 2, Clifton Villas, Harold Street, Hertford, would be glad to hear from any member who has for disposal a copy of the RIBA Loan Library Catalogue, now out of print.

THE IMPERIAL WAR GRAVES COMMISSION has a vacancy for a post of Architect and Surveyor in Mesopotamia. Salary, £700 per annum; ex-service man, not over 35. Apply The Secretary, Imperial War Graves Commission, 1 Lake Buildings (north entrance), St. James's Park, S.W.1.

THE Board of the Great Indian Peninsula Railway Co. requires an assistant to their architect on the Staff of the Chief Engineer in India. Must be an A.R.I.B.A. Duties comprise mainly the design and supervision of stations and other buildings throughout their system. Three years' engagement. Salary Rs. 600 per month. Address the Secretary, RIBA, 9 Conduit Street, W.

The Committee of the "Titanic" Fund are desirous of apprenticing a lad, aged 16, to an architect. The premium would be small, but owing to the special circumstances it is hoped that some one in sympathy with the "Titanic" Fund would be willing to waive the normal premium. Address the Secretary, RIBA.



BAGHDAD.
View looking S E.—"New Street," with Marjan and Abd-el-Kadr Mosques.

MESOPOTAMIA: ARCHITECTURAL IMPRESSIONS OF A RECENT TOUR.

By EDWARD WARREN, F.S.A. [F.].

Read before the Royal Institute of British Architects, Wednesday, 2nd March 1921.

AT the present moment, when the political fate and future governance of Mesopotamia are matters of anxious speculation, it may seem rash for a mere artist to offer his impressions of a short visit to that land of the rivers, whose plains have, from time immemorial, witnessed the advent of so many successive invasions, Assyrian, Persian, Greek, Roman, Arab, and Turkish, and whose history rings with the fateful clamours of the rise and fall of so many great and powerful dynasties, Assyrian, Babylonian and Sassanian. It is, however, to the visual aspect of existing things, and the architectural vestiges of Mesopotamian history, that I venture to invite your attention, and I should perhaps explain, at the outset, that my tour in that country was undertaken without the least reference to its architecture or archæology. My task was to inspect those sad vestiges of the war—our military cemeteries, to report upon them, and advise as to their permanent form. This task—and happily for me—implied travelling over a great deal of this most interesting land, and visiting not only its principal towns but spending some time near many of its most ancient and notably historic sites. I had, however, very little leisure, and therefore have to ask your indulgence if what I have to show and describe to you, together with my comments and impressions, are somewhat superficial.

In the few weeks that intervened between my appointment by the War Graves Commission and my chilly embarkation on a military transport at Tilbury, on 31st October 1919, I had little leisure for archæological study or preparation of any sort, other than technical and official, for the opportunities of my tour. The war, and the happenings of the initially tragic and finally glorious campaign in Mesopo-

tamia, had taught us all something about its geography. We were all aware of its intimate connection with much of Old Testament history, and most of us, I hope, knew something of Layard's and Rawlinson's finds in the British Museum, and the wonders of Assyrian art to be seen there. Nineveh, Babylon, Ninroud, Khorsabad and Ashur, Ur of the Chaldees, Ctesiphon, and Seleucia were known, perhaps, in a minor degree, though recent history had made the second of these definitely and painfully interesting by its mere locality. Baghdad, Mosul, and Bassora were familiar to all readers and lovers of *The Arabian Nights*—that is, I hope, to every one in this room: and the last-named, under the curtailed title of Basra, is now as well known by name as Southampton or Singapore.

It was for Basra, of course, that I was destined, and, after some four rather uncomfortable weeks on our very crowded old P. and O. boat, crammed with officers, and with wives and children, and proudly bearing no fewer than 12 Generals, we made Bombay. I had the good fortune to get transferred immediately to a well-found and charmingly officered ship of the British India Co., and six more very warm days of sailing brought me to Basra at the beginning of December. I had reflected rather dismally at Port Said that at that point, and about a fortnight out from home, I was within 700 miles, as flies the crow or the aeroplane, from Baghdad, and that I had still, by the route ordained for me, well over 5,000 miles still to travel in order to get there. The journey by aeroplane has been done in seven hours; that by sea took me three weeks.

When we had passed Fao, swung over the bar at high tide, and were forging up the wide waters of the Shatt-el-Arab, with its margins of tall feathery reeds, its forests of palm groves, and dilapidated bunds and mud walls, I was keenly on the watch for buildings of any kind. There were none to be seen for miles and miles, except what at first seemed to me to be occasional shabby ruined houses of mud, which appeared to be without roofs. This appearance, as I soon found out, was illusory, but the mud roofs being flat and without cornice or parapet, the walls seemed to be merely cut off and uncovered. The creek of Mohammerah, with its picturesque jumble of graceful Arab mahailas, with their forward raking masts, charming curves of hull and high windowed poops—a reminiscence, I think, of old Dutch and Portuguese ships—soon gave place to the high-built and pretentious yellow brick palace of the Sheikh of Mohammerah, who politely responded with one gun when we dipped our flag to him. Basra soon appeared as a huddle of masts, spars and funnels, backed by palm trees, over which soared the four great standards of the wireless station.

I was kindly met, and taken in and done for, and next day began my official inspections. These lasted more or less, with various interludes of short journeys by car or motor launch, for about a fortnight, when, having had a loathsomely ugly but comfortable stern-wheel steamer, and its seraiings and Indian crew, allotted to us by the Commander-in-Chief, the Director of Works and myself steamed off up Tigris on our gradual progress toward Baghdad.

I should here remark that the riverside place we call Basra, with its three or four miles of wooden piers and quays, repairing docks, yards, siding and sheds, is not Basra at all, but a compound of the town of Ashar and the village of Maghil. The real Basra lies a mile inland, forsaken by the ever-shifting river, but reachable by a creek which divides it from Ashar, and is known by the name of the latter. It retains a good deal of its old walls, mostly of sun-dried brick and mud, to which the partially encircling creek forms a moat. It has dirty picturesque bazaars, narrow shabby streets, wide shabby "places" or irregular squares, a battered dismal-looking mosque or two. It is difficult to discriminate clearly between Basra and the old parts of Ashar, which are much the same. Taken as one place, it is a dilapidated, ill-built, out-at-elbows town, strongly Turkish in general effect, like the shabbier parts of Salonika before the fire of 1917.

There are the same flat-topped houses with square projecting jealously latticed windows on the upper floors, and a few narrow barred windows below; there are the occasional smartish new houses of the wealthy, built in pale yellow brick much like that of Staines, but very inferior, and having large heavy doors of Indian wood, sometimes much panelled and carved, and giving glimpses, when open, of

quite imposing courtyards with elaborate wooden galleries. But the general effect is of dilapidation, dust, and heat, the brightest conceivable of blue skies, the blackest of shadows, yellow brickwork, tawny mud hovels, houses and balconies painted pink, yellow, green or blue ; the whole pictorially redeemed by the charming lines and colours of Arab dress, and the shifting kaleidoscope of humanity, with its attendant animal cortège of camels, horses, mules and donkeys.

Dust everywhere, when it isn't mud, as it very quickly is within a few minutes of the heavy rain-storms that come sweeping up from the Persian Gulf. At Basra, and in " Mespot " generally, the dust of an earthy to-day is the mud of a muddy to-morrow. Ashar Creek, which is as muddy as the rest, is, the best bits of it, at any rate, as picturesque notwithstanding as much of Venice and most of Amsterdam.

From Ba-ra a sunny afternoon and a part of the evening brought us up to Qurnah, on a palm-studded delta between Tigris and Euphrates, which join there to form the Shatt-el-Arab, and the popularly reputed and quite indefensible Garden of Eden. There are serpents there, I'm told, and Eves I dare say, but no garden. There is, however, the Tree of Knowledge, a nahbuk, perhaps 200 years old, withered and absolutely dead, broken off close to the earth a few weeks after we saw it by roystering demobilised and demoralised Britons, who climbed, inebriate and glorious, into its uninviting branches and fell with it to the ground. It has since been set up again in concrete, and I received a photograph of it last week.

A few miles above Qurnah is a piece of architecture, and one of the most charming objects on the Tigris, with its beautiful blue-tiled dome, its picturesque outer walls and courtyard, and its happily placed trees. This is the tomb of the Prophet Ezra, held in great reverence alike by Christians, Mahomedans and Jews.

Not far above Kut, and after various halts for inspection of many sad vestiges of war, trench-scored battlefields and groups of graves, we saw with some excitement, in the distance, on the dead flat of the left bank, the startling silhouette of Ctesiphon Arch, the sorry remnant of the great palace of the Chosroes.

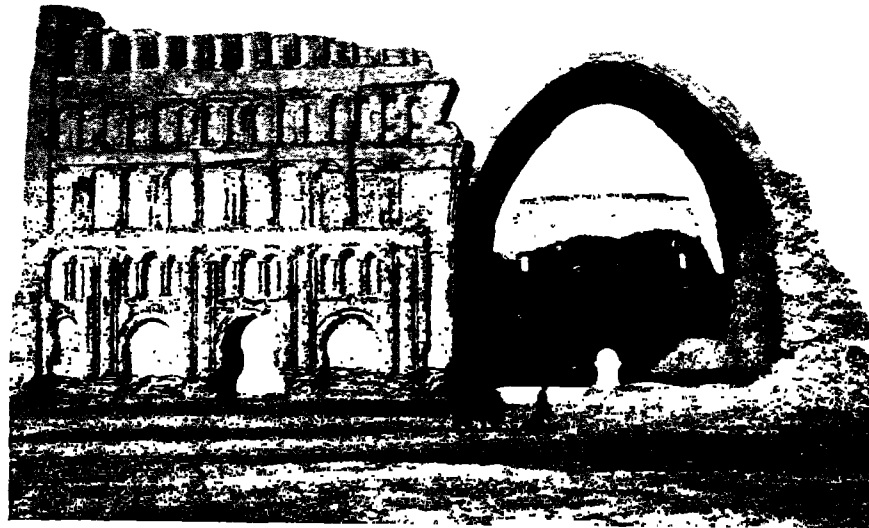
If you will refer to the admirable drawings Nos. 3 and 4 of Mr. Lionel Muirhead, made in 1869, you will see that at that date the greater part of the façade, the arch of the great hall, and the fronts of its wings, were intact. Mr. Phené Spiers, in his account of Sassanian architecture, says that the right-hand or north-eastern wing, which is missing in my photograph of December 1919, was blown down in 1890. There was almost no brick débris on the ground when I visited the ruins, but much indubitable Ctesiphon brick in village walls, culverts, and the tombs of a neighbouring native cemetery. However, during the ages that have succeeded the sack and ruin of Ctesiphon—a large town with extended walls and many buildings—similar bricks were probably to be had for the mere getting. All along the base of the left or south-west wing, which alone remains, the bricks for a depth of about a foot—and they are mostly about 12 in. square by about 2½ inches to 3 inches thick—have been picked out. The bricks are of a quiet red colour, much like some of our seventeenth-century bricks, and with a similar rough face—very hard, admirably burnt, and set in admirable cement.

The palace was built by Chosroes I. Fergusson gives the date as about A.D. 550, and since the first Chosroes' reign was from 531 to 579, that is probably about right. The great vaulted hall was over 160 feet long by 83 to 84 feet wide, and vaulted with a roughly elliptical barrel vault 95 feet high to the crown of the arch. The total width of the palace front was about 312 feet, and nearly or quite 110 feet high. The side walls of the hall I found to be 23 feet thick. The remaining front wall is about 16 feet thick. The great arched entrance of the hall appears to have been always open. It is conjectured that it was screened by a great curtain, which I can hardly believe.

It seems to me that the hall, facing east by south as it does, could only be penetrated to the rear end by the low early morning sun, and its builders were sun-worshippers, so that the first rays of the risen sun would be welcome. During the hot weather and after early morning, almost the whole of the interior would be in shade ; a great part of it was so when I took my photograph at about 11 o'clock on

the 31st December. As the hall probably served not only as a magnificent vestibule to the various large chambers of the palace, but as a hall of audience and for feasting, the necessity of shade under the fierce sun of Mesopotamia is obvious.

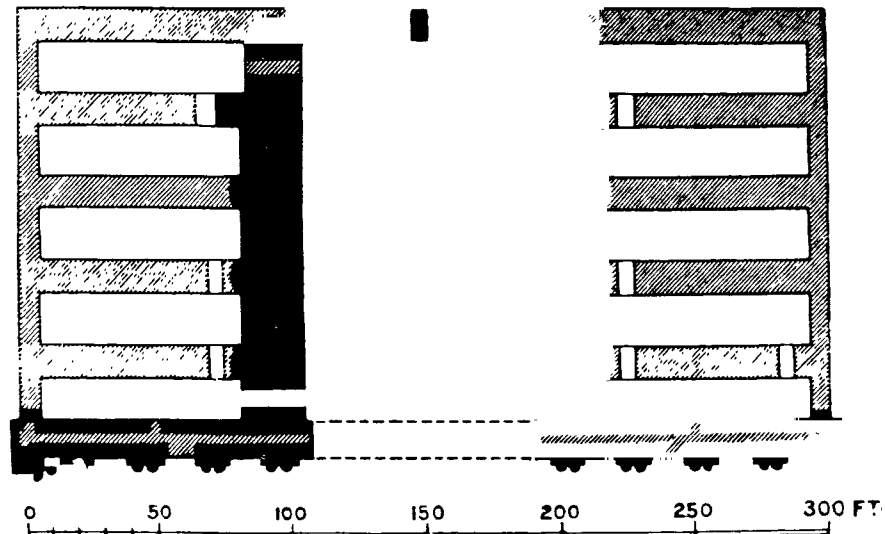
The purpose of the ten side chambers, about 80 feet long by 20 feet wide, and the method of



RUINS OF PALACE, CTESIPHON. FRONT

Photograph by R. I. Money Esq.

lighting and ventilating them, is a matter for conjecture. They may have been guard rooms, treasure rooms or sleeping chambers for the winter, or even prisons: some of them may have contained the staircases leading to the upper floors. They have now entirely disappeared, and it is only the bonding



RUINS OF PALACE, CTESIPHON. PLAN

of their walls to the outer hall walls, and their foundations, that indicate their form. The much-arcaded front has no window openings. It is a mere dead façade of imitative Roman design.

The construction of the great vault is very interesting, and affords a fine field for speculation as to the methods employed in building it. It must be remembered that timber of a kind or of lengths

sufficient for scaffolding in the Western way, and planks for centering, were impossible to obtain. It is therefore extremely probable that, as has been conjectured by several authorities, it was built without anything that we should call centering.

M. Dieulafoy's section shows that the arch rings all incline towards the inner or north-west end of the hall, though, according to my own observation, he makes the angle of inclination much too acute. The fact that the rings do incline leads inevitably to the supposition that the thick end wall was first built, and that each succeeding ring leaning back against its predecessor received so much support that centering, in the strict sense, could be, and was, dispensed with.

You will notice, however, the six parallel rows of holes on each side of the vault. These have given rise to much conjecture. Mr. Phené Spiers thinks they were holes to admit the chains suspending lamps, as it is stated that in the sack of the palace in A.D. 637 a number of silver lamps were amongst the booty. The fact that several, though by no means all, of these holes contain earthenware tubes, lends colour to this. My own conjecture is that, whatever their subsequent use, they may have been originally the holes into which scaffold poles were fixed, "punnet holes," as we call them, and their regularity of spacing horizontally and vertically abets this view. Scaffolding of some sort there must have been, and this quite probably consisted of palm stems, which are still occasionally used for this purpose, and for rough bridges, etc., in Mesopotamia.

These could hardly exceed from 35 to 40 feet in length, and would need stiffening by a good deal of cross-bracing, but it seems to me extremely likely that the vault was stayed from the scaffolding, without centering, and that the admirable quality of the cement used, with this assistance, secured the process of building. The Persians of the Sassanian dynasty, if they did not employ Arab workmen, as they probably did at Ctesiphon, most likely relied to a great extent, as do the Arab builders of to-day, on the wonderful sticking power of their cement.

It is obvious that in the sixth century good fuel was obtainable for firing at Ctesiphon, as it must have been two thousand years before that at Babylon. Its absence to-day, when all woods and forests have long ago vanished, is one of the main reasons for the softness and friability of the pasty-looking modern Arab brick. There is no available fuel but desert scrub, which is borne on donkeys frequently from a long distance. Another reason, I believe, is the insufficient puddling of the clay, which is full of salt or saltpetre. You see it gleaming like hoar frost over the dry earth along the Tigris. As to mortar, there is plenty of limestone at Hit, on the Euphrates, and also, I believe, farther north and west, in the Jebel Hamrin ridge, and round Mosul, but it is difficult to convey in quantity, and therefore costly, so that, at a little distance from a navigable waterway, building is apt—in Mesopotamia—to be very poor, and the average native material is mud for walls and roof-covering.

I have dealt at some length with Ctesiphon, as still being, though now a mere fragment, the most striking and interesting ruin in Mesopotamia, and the most striking vestige also of the short-lived Neo-Persian Empire.

The distant view of Baghdad, with its large square-topped houses and its minarets rising above the palm tops along the banks of the broad river, is imposing, and I certainly found it exciting. But its river aspects are its only stately ones. Intensely picturesque it is at every turn and containing many beautiful domes and minarets, but most of its streets are very narrow, and some of them very squalid. There are a number of poorly built, though sumptuous, palaces, abutting on shabby lanes, but always containing fine inner courts and large well-windowed rooms—all, however, in that dull, slightly Europeanised Oriental manner of uninspired architecture that stamps the dominance of Turkey. This great town is pervaded by the out-at-elbows, devil-may-care effect which that dominance seems to foster everywhere. Its bazaars are very extensive, labyrinthine, interesting and picturesque in a most fascinating degree. Colour and light shifting and changing, gleams of intense sunlight stabbing through dusky gloom, and falling upon rugs and silks, brilliantly dyed garments, shoes and slippers, amazing fruit stalls, copper and brass, earthenware, glass and coarse jewellery, arms and bric-à-brac; crowded

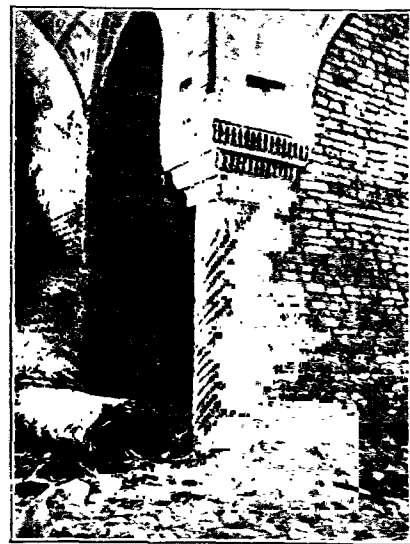
little cafés at every turn, and larger ones huddled into dusky ancient vaulted chambers, where divans and benches are occupied by serenely imperturbable, dignified, charmingly dressed gentlemen, quietly smoking their houkahs, apparently with perfect conviction and content. All this forming the banks, as it were, to an ever-changing river of diverse and diversely clad humanity—Arabs, Kurds, Jews, Persians, Syrians and Negroes, with, of course, the exotic intermixture of Tommy, Jock, and their Indian brothers-in-arms in various shades and degrees of khaki. Vociferous, cheerful, quarrelsome, haggling

and chaffering, the crowd is perforated and pushed aside intermittently by slouching, supercilious camels: daintily treading, gaily caparisoned Arab horses with their handsome and dignified riders: or hustled by the hideous toot and scintillating bulk of incredible motor cars, bearing British officers and their ladies. Every little art and craft is carried on in or outside of small open shops—copper and brass work, wood-turning and furniture making, sweetmeat making and cookery. Fine dust rises everywhere and dances in the sunbeams, and a mixed, musky Oriental smell concords with the mixed Oriental noise.

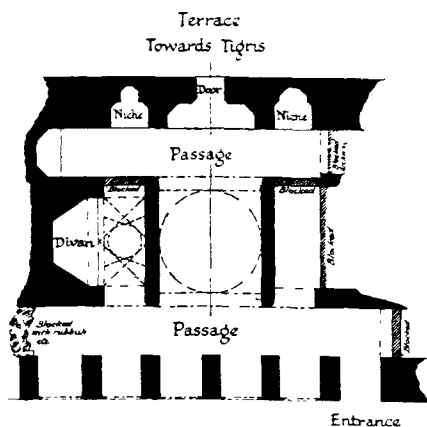
Of fragments and remains of antiquity Baghdad has a great deal, but very generally they are hard to find. At the citadel, which is mostly modern and Turkish, there are the remains of the palace in a few rooms, with extraordinarily finely and delicately cut brick-vaulted ceilings of the thirteenth or fourteenth century. There are the remains of the great College or Madrasat-al-Mustansariyah, built by the Caliph Mustansir Billah in A.D. 1236, ruinous and partly used by the Turks as a custom house, which still retains a beautiful and elaborately carved brick doorway of great height, only possible to see by groping into a dusky café below and climbing on to a flat house-roof above, near its apex. There are old vaultings, columns, etc., and ancient bricks and stones and the like built into cellars and serdabs, which may be of Haroun-al-Raschid's time, or earlier. These are extraordinarily difficult to date, except by a most accomplished expert.

The mosques are, several of them, of the fourteenth century or older, but nearly all rebuilt or made over. Many of these, happily, have beautiful blue-tiled domes and graceful minarets, sometimes also covered with glazed tiles—mainly blue, but often, and, as I think, with happier effect, having tiles only on their little domes, or in charmingly placed bands round their galleries or necking.

Mr. Muirhead's delightful drawings—the Abd-el-Kadr mosque and the Marjan mosque—show admirably the colour effect



SERDAB, BAGHDAD.



OPEN COURT

SERDAB, BAGHDAD
Plan. Measured by E. P. Warren, Jan. 1920

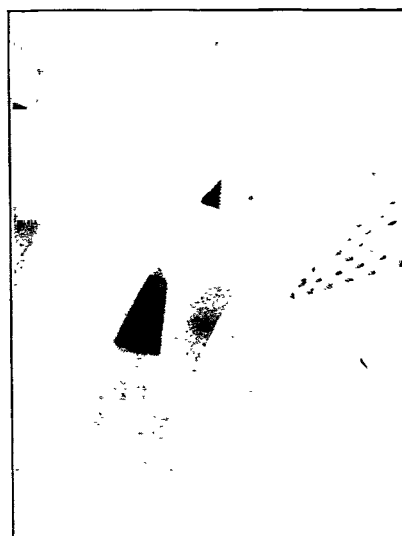
of these. The instinct for blue seems ingrained in the Arab builders, and is probably due to the superb blue of their skies, which their tiles catch and repeat in a delightful manner.

The Serdab, or summer chamber, to which I alluded, is a typical Mesopotamian institution. It exists in Egypt and I expect in Syria and probably in Arabia generally. Most houses of any size or consideration seem to have one. It is usually semi-subterranean, its floor 5 to 6 feet below that of the ground floor, and its few windows facing the east or north, a little above ground level. It is frequently, in modern instances at any rate, provided with a wide shallow ventilating flue carried up above roof

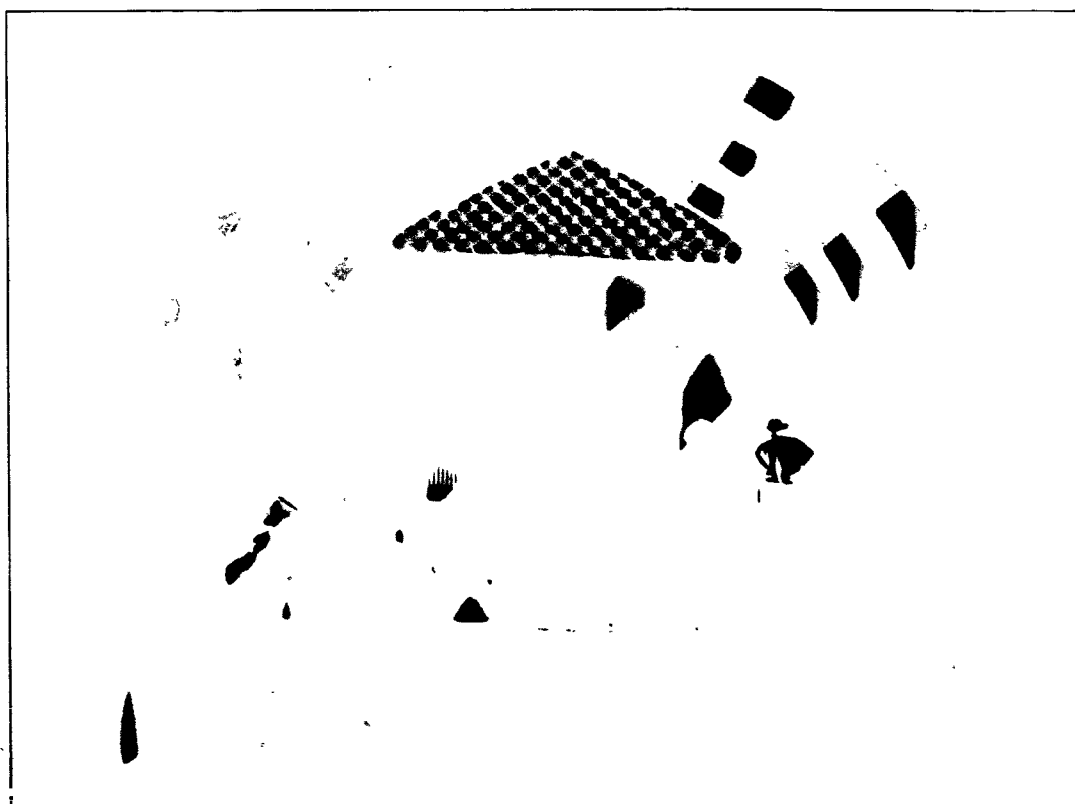
as a chimney and terminating in a little dome or roof. The opening, in the serdab, to these flues is frequently a pretty little brick arch of a cusped shape rather Gothic in effect.

On the outskirts of Baghdad are two buildings of an interesting and unusual type, both of them tombs—that of Zobeide, the beautiful and favourite wife of Haroun-al-Raschid, on the right bank of the Tigris, and that of Shibab-al-Din Umar Suhrawardi on the left bank, and in the northern outskirts of the town. This is a brick structure cemented over as to its strange, rather vegetable, conical roof or spire. It really suggests a long cone. It was built at the end of the eighth century probably, since Haroun reigned from A.D. 786 to 805, but I doubt if much of the original structure remains.

You will notice the rows of projecting crockets or acroteria. These are features which appear in both these examples, and also in the similar tomb roof over the grave of the prophet Ezekiel at Kifl, on the southern Euphrates. In these last two instances the niches are astride those of the course below, instead of arch over arch as in Zobeide's, and in Ezekiel's tomb the niches are expressed externally by shallow arches, having less therefore of the vegetable effect of the round brick niches. As to the crockets or projecting heads to niches, I have my own surmise. Apart from their decorative effect in arresting the eye, an effect frequently gained in Western church spires by crockets, by small dormer windows or decorative bands, it must be remembered that Arab builders have not the habit of complete external scaffoldings such as we employ. They built chiefly from rough stages inside their walls. It is obvious that it



KHAN ORTMAH, BAGHDAD.



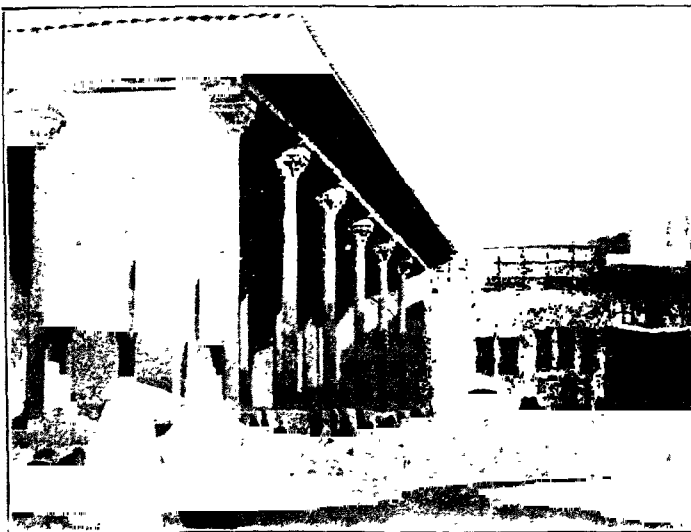
KHAN ORTMAH, BAGHDAD



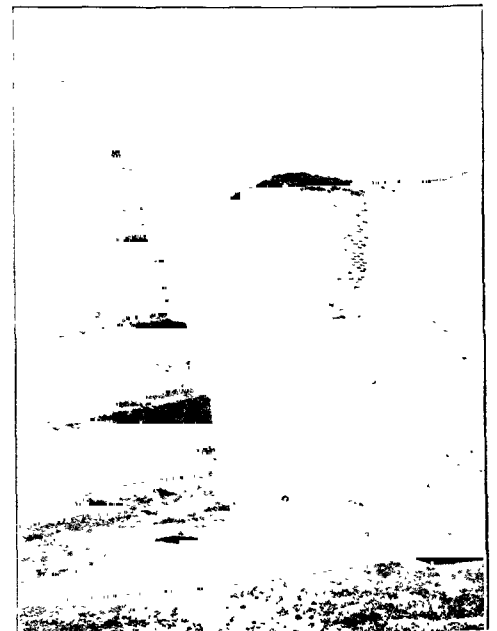
KAZIMAIN, NEAR BAGHDAD. MAIN ENTRANCE COURT
TO GREAT MOSQUE



TOMB OF ZOBEIDE, BAGHDAD



KAZIMAIN. SIDE COURT OF GREAT MOSQUE



SAMARRA. THE WALL AND BASTION OF RUINED MOSQUE
AND THE MALWIYAH SPIRAL TOWER, OR ZIGGURAT

would be impossible to build the final cone or cap from inside, if indeed the narrow space near the top would admit of working, and these crockets would admirably support a staging from which the cap could be completed.

Zobeide's tomb was the only one I could enter. The interior seemed to be just a reversal of the exterior—that is, that the whole construction was practically a series of superposed niches or pendentives.

I have now to deal with what, to me, is one of the most interesting buildings in Baghdad or indeed in Mesopotamia. This is variously known as the Khan Ortmah, or the Auqf Khan, a superb brick warehouse for storing merchandise brought from a distance by caravan or boat, and built in 1359 by Marjan ibn 'Abdullah ibn Abdul Rahman, a freed slave of a sultan, who became rich. He founded this khan as an endowment for the Marjan mosque near it, which was built two years earlier at his cost, and beneath whose dome he is buried. Mr. Muirhead's drawing No. 10 gives an excellent impression of the interior, which is a little over 40 feet wide.

The roof is very interesting, and resembles that of the ruined palace of Taq-Eivan in Persia, being a brick barrel vault intersected by a double tier of dormer windows at intervals, reducing the roof practically to a series of broad transverse arches, between which the upper-dormers are carried by cross arches, the only extra light, plus perpetual ventilation, being the brick latticed opening at one end, and a small high-placed window at the other. This is really a noble galleried hall. It would make an admirable church. Along its sides are two floors of lock-up chambers for merchandise, the upper rooms reached by the gallery. Its rent is immensely high, and its tenant makes a good thing out of the fees for letting secure housing space to caravan contractors and merchants, I believe. Externally it is so built up against and smothered by the shops of the bazaars that little but its very odd-looking roof is visible.

Four miles or so upstream from Baghdad, on the right bank, and attainable if you will by an antique double-decked old horse tram, is Kazimain, a most notable place, a kind of little Musulman cathedral city, its narrow and theatrically picturesque streets and unlikely houses as well as its most attractive bazaars being crowded round and up against the sacred courts of the great mosque. Here are the tombs of the 7th and 9th Shia Imams, Musa ibn Ja'far, and his grandson Muhammad ibn 'Ali. This is one of the great pilgrimage places in Mesopotamia, or Iraq as it is easier to call it, and the mosque is one of the finest, if not the very finest, in that country. The shrine existed in the tenth century, its builder unknown; it was plundered by the populace of Baghdad in the eleventh, but restored soon after. Nasr-ud-Din, Shah of Persia, caused the twin domes to be plated with gilded copper, and the minarets also to be richly gilt.

Some 65 to 70 miles up the Tigris, on the left bank, is the ancient and most curiously interesting town—Sāmarrā—lying a few miles north of the ruins of Opis.

Sāmarrā is built close to the river bank, which here is composed of a sort of natural concrete or coarse conglomerate of pebbles. This has been cut into, and, so to speak, built up and fortified with its own material in such a way that it is difficult to discriminate accurately between the works of nature and of man. My slide shows the cliff-like bank, with the ancient mediæval-looking gate tower of the Persian enceinte. The town, absolutely enclosed by its bastioned walls of mud and brick, with their curious Ghibelline-looking battlements, is a compact, rather pleasant-looking little place, huddled round a big mosque with a gilded dome and tall minarets.

I give you an aerial photograph, which shows how absolutely bewalled and self-contained is this town.

Some half-mile or less to its north-east, and hard by the remains of the great walled court of a demolished mosque, is the most singular tower I ever saw. This spiral of solid brick seems to be in all probability of Persian origin, like the ruined palace a few hundred yards away on the river bank, and serving some ritual purpose of sun worship. Its top would certainly be an admirable place from which to greet the rising sun. It has a spiral path about 6 feet wide winding round it from the base to the

summit, where there is a sort of little circular pen. Having toiled to the top, I should judge it to be some 170 to 180 feet high. From this height one sees the extraordinary labyrinth of aligned mounds, which recent aerial photograph plans, and notably those published and explained by Colonel Beazely in the *Geographical Journal*, make much plainer to the reader of his fascinating little article than it is from the tower top.

This is the city, or series of cities, known as Eski Baghdad, or Old Baghdad. I can only show you a portion, but this includes one of the extraordinary quatrefoiled spaces, park, garden, or looped race-course, of which there are several.

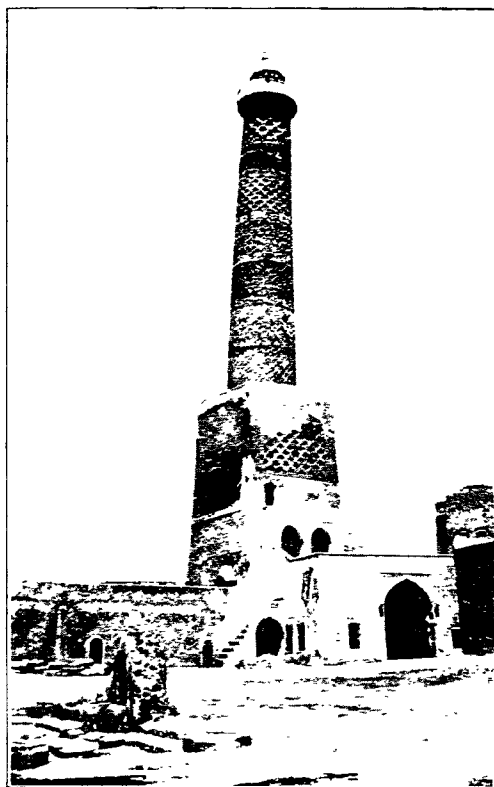
Ruin is everywhere round Samarra, and the prospect from the spiral tower is a melancholy one. The Persian palace has little left but its arched portal on the river bank and its débris inshore—stones, bricks, and even curious half-columns of the coarse alabaster from Ashur or Mosul. In the midst of these ruins, which are intersected by military trenches of the late war, is a wonderful sordab: an immense, roughly circular underground chamber, open to the sky, hacked out of, and built up with, the pebble conglomerate, and having arched recesses arranged like the petals of a flower around its circumference. In some of these a little old plasterwork of Persian effect, but not, I think, very ancient, still lingers. I suppose that the great circular centre was possibly roofed over in some way, or perhaps screened in the hot weather by some kind of awning or velarium. I found nothing, however, to suggest either form of covering.

From Samarra, which has a station of that name on the German Baghdad railway, that runs along the opposite bank, it is easy to get as far towards Mosul as the railhead at Kalat Shergat, distant some four miles from the site of Ashur, ancient capital of Assyria. We were, perhaps fortunately, detained two nights at Shergat, on account of rain. This enabled us to walk over to Ashur, where German excavation has exposed a good deal that is interesting of the ruins of the ancient palace and its fortifications on a long and lofty mound close to the Tigris, and the roughly flagged quay near the river. We had the mild excitement of two successive night attacks by neighbouring Arabs, upon the camp and station, easily repulsed with a good deal of fancy firing in the dark by the native shebanas, or drilled Arabs. After a long cold drive of 66 miles of tableland in our faithful Ford car, and a midday halt at a picturesque khan, we plunged down a muddy, winding road to the finely metalled last few miles into Mosul.

Mosul is a charming-looking town and of a picturesqueness impossible to describe. Mr. Muirhead has shown it most charmingly in his drawings Nos. 14, 15, 16 and 17. It retains much of its very European-looking old fortifications, and is most pleasantly placed right on the river bank opposite the sites of Nineveh and Kouyunjik, and the villages of Nebi Yunus and the tomb of Jonah. It is full of crowded Musulman cemeteries with battered tombs of stone and brick. It has several large mosques, with tall minarets, one of them very badly out of the perpendicular. Its streets are mostly narrow, ill paved and none too clean, but more European in effect than Oriental; it constantly suggested Spain or Italy, with its lanes curtained by blank high walls. It has the remains of a Roman bridge, completed by an interval of Turkish pontoon boats. It has a strong Christian element in its population and several Christian churches. It has many sulphur springs, the smell of which one has to get used to.

Nineveh and Kouyunjik we visited, but found them little but broad lofty mounds, breached only by one road, that mark and cover the walls, and the site of Sennacherib's palace; Jonah's tomb, after the removal of our boots, we were permitted to see. We also managed to visit Nimroud, where we found two of the great human-headed winged lions still embedded but peeping above the soil. Khorsabad, to my regret, we could not visit.

Much of my time and attention at Mosul was devoted to the examination of what is called Mosul marble, but what is really a coarse greenish alabaster. This has been quarried and used from time immemorial. Most of the winged bulls and lions from Nineveh, Khorsabad and Nimroud are carved in



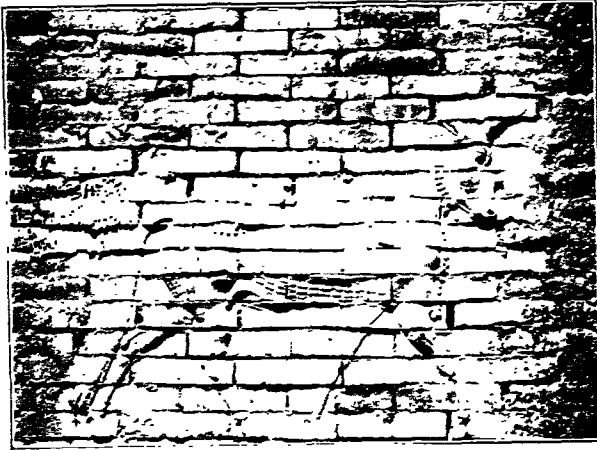
MOSUL. BRICK MINARET.



MOSUL. THE BRIDGE OVER THE TIGRIS

this material: so are all or nearly all the beautiful bas-reliefs from Kouyunjik and the splendid lion-hunt in the British Museum.

A softish, rather pretty, variety of this alabaster is quarried some two miles out of Mosul, and I found that its strata lie close to the surface and are separated by narrow layers of hard yellow clay,

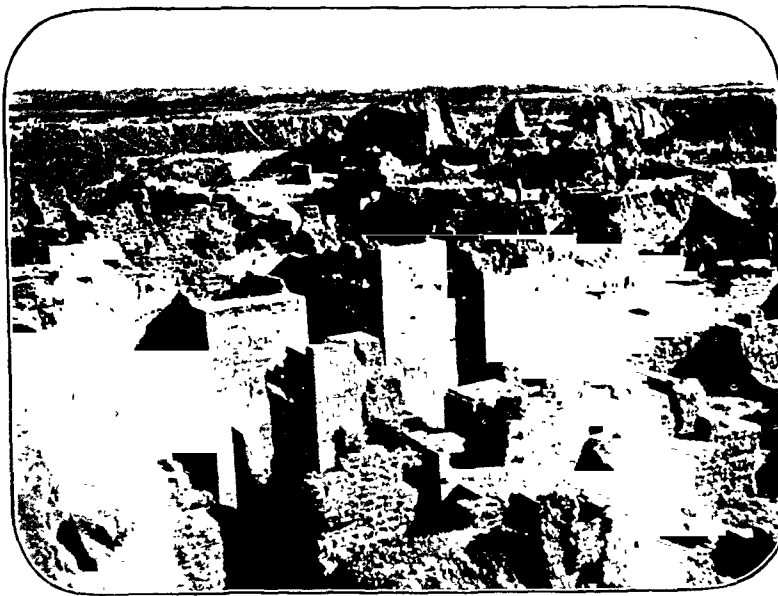


BABYLON. BULL ON ISHTAR GATEWAY.

exactly like coarse pottery—large blocks 6 or 7 feet long by about 2 feet square were being got out. It has been much used in modern Mosul and in the old monastery near Calah and Nimroud. It is, however, quite unreliable if exposed to weather.

Mosul has a weaving industry and its rugs are well known. It gives its name to a powerful and heady sweet wine made from raisins that is much esteemed. It has wide spaces, large palaces, and always the mountains just across the Tigris. Shabby and sulphurous as it is, it has charm and poetry and, to my thinking, is the most attractive of the considerable towns of Mesopotamia.

I have, so far, dealt with the towns and sites on the Tigris. I now propose to say a little, and to show a few photographs, relating to those upon the Euphrates, of which I saw less, but which, of course, include that tremendous centre of historical interest—Babylon. I shall at once disclaim all intention of offering you out of my scant knowledge, and after my few hours' visit to the central site of Babylon, anything more than a few observations upon the architectural and sculptural remains there, and a few photographs of details.



BABYLON. RUINS—THE ISHTAR GATE.

BABYLON.

Most tourists in Mesopotamia, I believe—and what was I, after all, but a tourist on an official tour, with a few casual hours at his disposal and a little knowledge of architecture?—most tourists on visiting Babylon are primarily concerned in fixing to their own satisfaction, and subsequently describing to their friends, the site and the ruins of the Tower of Babel. In that sense I break away from the ranks of my tribe. I may have seen the site of that tower, or I may not. I should like to believe that it is the extraordinary mound crowned by a strange

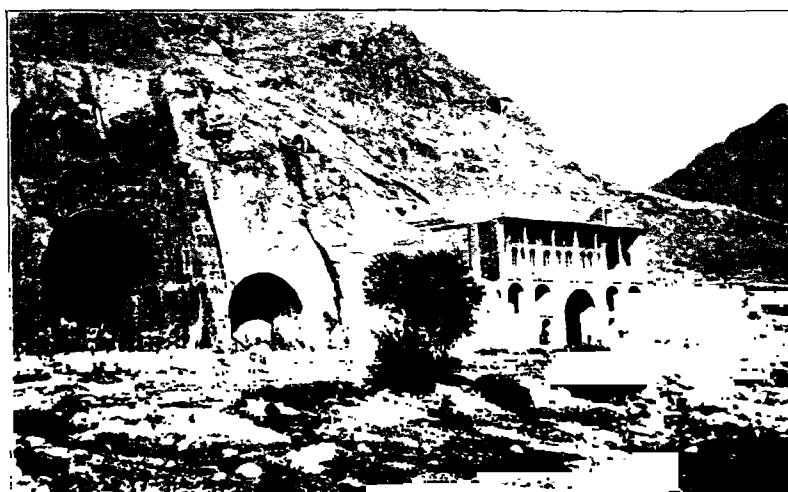
tower split in two, by lightning it is said, which marks the site of ancient Borsippa, and is by many accepted as the Tower of Babel. It is known to the Arabs as Birs Nimroud. Mr. Muirhead's drawing (No. 11) gives its distant effect much as I saw it in February of last year. It lies six or seven miles to

the south of the site of Babylon and is a salient and surprising feature of the landscape. Sir Henry Layard thought it probable that the brick tower, now shattered and ruinous, was the culminating feature of a great five-terraced palace, while Sir Henry Rawlinson believed it to be the ruins of a temple of Nebo erected by Nebuchadnezzar and built in seven stages representing the seven planetary spheres, each sphere being represented by a typical colour in enamelled bricks. Layard says that fragments of stone, marble and basalt are scattered about the mound. The Tower of Babel may, however, have been at Babil, to the north of the main central ruins. The Kasr, or palace, with its remains of roads, of gateways, of Nebuchadnezzar's banqueting hall, and of the famous hanging gardens, supported by brick piers and arches, absorbed most of our attention, and notably the great piers of the gate of the goddess Ishtar, and the splendidly preserved and beautiful reliefs in brickwork of bulls, horses and unicorns, which adorn them.



TAQ-I-BOSTAN, NEAR KERMANSHAH, PERSIA.

Next in importance to the artist, as distinct from the archæologist, is the celebrated lion in black basalt. The bricks—that is, those of Nebuchadnezzar's date—are mostly about 3 inches thick and from 14 inches to 18 inches square, pale buff in colour, hard and well burnt. They are all stamped on the underside with his name and attributes. Those laid on pathways and terraces, as well, I presume, as those laid over flat roofs, pier-tops or surfaces open to the weather, seem to have been laid and set in bitumen. I am able to show you fragments of the brick and the bitumen which I was permitted to bring away. You will see that the bitumen adhering to the brick is marked with reeds. It is, therefore, evident that it was laid over reeds. I can only suppose that this was to enable it to be laid with less waste, for, under the fierce sunshine of a Babylonian summer, bitumen would melt and run like tar. Some of the bricks, however, are similarly marked with reeds—I suppose because they were laid on reeds to dry before firing. However, I speak in the presence of experts and had better be careful. The Babylon of to-day is a wilderness of mounds, most confusing without a plan and quite possibly misleading with one. It is easy, however, to make out certain great features, such as the Greek Amphitheatre and the great piers of the bridge across the Euphrates.



TAQ-I BOSTAN, NEAR KERMANSHAH, PERSIA.

South of Babylon lies the singularly pretty little town of Hillah, without much in the way of definite architectural features, but a pleasant riverside little town, where we were most hospitably and delightfully entreated by the Political Mess, to whom all honour and gratitude. The houses of Hillah are largely built with bricks from the ruins of Babylon. Twenty-five miles or so to the west of Hillah lies Kerbela, a big town as Mesopotamian towns go, and containing two great mosques, one of which is the chief shrine of Shia devotion and pilgrimage: it contains the tomb of Ali Hussein, the grandson of the Prophet. This shrine attracts an enormous number of Persian pilgrims and well-to-do Persian residents. The Political Officer, himself a Persian, told me that the population of the town is two-thirds Persian. The town looks prosperous and has wide streets of large houses really superior to anything of the kind I saw elsewhere in Mesopotamia.

Nejaf, farther south, I was unable to visit. It is, I am told, a most interesting and attractive town.

Twenty-five miles north of Hillah is the great Hindié Barrage, as to which I shall say nothing, as my friend Mr. Money is present and will tell us, from intimate knowledge, how that great work was projected and carried through. Twenty miles south of Hillah is Kifl—the site of Ezekiel's shrine.

I have only one more Euphrates town to speak about, and to show by photograph, and that is Hit, which lies about 70 miles west by north of Baghdad, on the fringe of the great desert. Hit is unusual as a Mesopotamian town, in being built of and walled in with limestone rubble instead of bricks and mud. It is piled on a monticule of rock, and at a mile's distance looks strangely European, Spanish or Italian. Its narrow, stone-built little streets wind up under stone-arched gateways. The great preoccupation of Hit is its important bitumen industry. Close to the town, and pervading a large area of ground, are the bitumen wells. There are, indeed, black lagoons of this most useful but nasty-looking product constantly surging up amidst tufts and islets of coarse grass and scrub, and what I suppose must be called refineries, of a primitive order, stud the shores of these Stygian lakes, sending up to the heavens black clouds of smoke, and most unrefined smells.

I terminate my Euphrates views with a Persian water-wheel of the type commonly used on that river. In this rather remote connection with Persia, may I say that our duties of inspection led us for a few days, in January, into that fascinating country—fascinating even in winter time and under snow, which, indeed, stayed our progress at Kermanshah. We started from Kuraitu and went by Sar-i-Pul, Karind, etc. We had to ascend the fairly formidable Pei Tak pass—fortunately then free of snow, and halted to inspect the Roman-looking stone arched fountain half-way up. We reached Kermanshah with difficulty, and very late at night.

Four or five miles northward of Kermanshah, on the rocky flank of a high hill, are the arched grottoes of Tak-i-Bostan. The left-hand and greater grotto is 30 feet high, 24 feet wide, and 22 feet deep; the right-hand, and smaller, 17 feet high, 11½ feet deep, and 19 feet wide. At the back of the great arch or grotto is a large bas-relief showing Chosroes II. between two supporting figures, while below he is shown on horseback and bearing a lance. At the sides of this grotto are charming reliefs of boar and stag hunting. I can show you the stag hunt. King Chosroes II. appears at the top of the panel entering the field on horseback under the royal umbrella, and accompanied by his retainers. Below he is shown galloping after and shooting at the deer. Below again he is riding home, after the chase. Near the top, in the left-hand corner of the relief, is a sort of scaffold, on which are musicians with instruments. There are also, in connected panels, elephants and camels bearing off the dead game.

To the right of the smaller arch, and on the face of the rock, is a large and most interesting relief of a bolder execution and symbolical intention. Two kings are standing upon a prostrate figure, and are holding the royal circlet or "cydaris." Behind the left-hand king is the god Ormuzd, with a flaming nimbus. Lord Curzon says "this is generally accepted as representing the investiture of Shapur I. with a share of the royal dominion, by his father Ardeshir Babekan, in the presence of the god Ormuzd," an act which is also indicated by the double heads that appear on some of Ardeshir's coins. The prostrate figure is conjectured to be that of Artabanus, the last Parthian king.

As a conclusion to my Persian and Mesopotamian impressions, I show you one scene of our snowy journey south-westward to the Mesopotamian frontier and Baghdad.

My most cordial thanks are due to Mr. Lionel Muirhead for the beautiful and most interesting and remarkable series of drawings he has so kindly lent me, and which he himself will tell us something about, and to Mr. Money, for the loan of some excellent slides and for a great deal of first-hand information as to Mesopotamia. This gentleman also we are to hear upon the subject of the great Barrage at Hindié, and that of irrigation in Mesopotamia, as to which he is an expert. My further thanks are due to Colonel S. Smith, who accompanied me on my official tour, not only for the loan of some excellent photographs, but for the admirable patience with which he not only supported my architectural vagaries, but aided and abetted them; also to the Royal Geographical Society, for most kindly attention to my enquiries and for the loan of slides.

Mr R. I. MONEY, C.E., followed with a description, illustrated by slides, of the construction of the Hindié Barrage and the works of irrigation in Mesopotamia, carried out under the advice and supervision of Sir William Willecocks. In order to provide a channel for the flood water of the Euphrates an excavation some 30 feet deep had to be made and the earth excavated to be shifted, the whole of the work being done by Arab labour under English supervision. The Arab method of transporting material is to lay a square of cloth or cotton fabric on the ground, put earth on to it, gather the four corners together, sling it like a bag over the shoulder, and carry it to where the earth is to be deposited. For the Hindié Barrage the material excavated had to be transported some two miles. A number of Arabs were called together, and the advantages of the wheelbarrow explained to them. They listened in silence, and at the end an old Arab spoke: "A thousand years ago you men from the West were unknown here. We have been here since the days of Moses. Do you think you can teach us anything about the handling of earth?" However, they learnt to use the wheelbarrow, and some million or so cubic yards of earth were transported by its means.

The question arose as to the material with which to construct the barrage. The lime came from Hit, and the stone for the great foundations and for the pitching came also from that district, 150 miles above the barrage. Stone could not be used throughout for the barrage owing to the difficulties of transport. The mud and soil at the site of the barrage, however, were found suitable for making bricks, and it was decided to build the barrage of brickwork. Brick-makers were sent out from England. At first the bricks were somewhat soft, but later they were harder, and ultimately very good well-baked bricks were turned out. The output was about two million bricks a month.

The barrage was finished just before Turkey entered the war; in fact, some of the engineers were made prisoners. The married men were forced to leave their wives and families at Baghdad, and the men were sent to Aleppo under a strong escort of soldiers. It is a three or four weeks' journey; the soldiers got tired, and, one by one, the escort dropped away, until finally, the men arrived at Aleppo without any escort at all. Anxiety was felt as to the fate of the barrage. It was learned, after the capture of Baghdad, that the retreating Turks despatched a body of troops to destroy the barrage. But the local Arabs, realising its value, rose in a body and prevented the Turks damaging it. The result was that the first year after our capture of Baghdad, owing to the increased area of land the barrage had made it possible to cultivate, such a surplus of forage and grain was grown that the whole of our Army in Mesopotamia was fed from the country itself, and an enormous amount of shipping which would otherwise have been required to transport supplies from India to Mesopotamia was set free for other uses, and this at a time when the enemy submarines were most active.

Mr. LIONEL MUIRHEAD, who had lent for the occasion a numerous collection of water-colour drawings, the work of his own hand during a long sojourn in Mesopotamia, made a tour of the room explaining the subjects depicted, and relating incidents in connection therewith.

On the motion of Sir G. K. SCOTT-MONCRIEFF, K.C.B., K.C.M.G., seconded by Sir WILLIAM GOSCOMBE JOHN, R.A., the thanks of the meeting were passed by acclamation to Mr. Warren and his coadjutors in the evening's proceedings, Mr. Money and Mr. Muirhead.

ARCHITECTS AND PUBLIC WORKS IN FRANCE.

WE note with regret the death of our French *confrère*, Gustave-Adolphe Gerhardt, at the age of 78. His career was so typical of that of the architect of ability in France that we record its outline for the information of members.

He was Grand Prix de Rome in 1865; completed his studies and *envois* at the Villa Medici, and on his return to Paris was forthwith appointed Inspector of Works at the Ecole des Beaux-Arts. Later he was promoted to be architect successively of the Ecole des Arts et Métiers, of the Collège de France, where he succeeded Ancelet, and of the Château de Compiègne.

Among his private works were the remodelling of the old Hôtel-Dieu at Poitiers for the requirements of the University; where he restored the exterior and designed the alterations and extensions for the Faculty of Science. He was the author of the monument to Emile Augier, Place de l'Odéon, and of that to Claude Bernard, opposite the Collège de France, of which Guillaume was the sculptor. In the competition for the Hôtel de Ville at Paris, his was one of the premiated designs. Wounded in the war of 1870, where he fought side by side with Henri Regnault, he was awarded the Médaille Militaire; in 1873 he received the Cross of the Legion of Honour, and subsequently rose, from *Chevalier*, to be *Officier* of that Order.

After his retirement from the Bâtiments-Civils he became private architect to the École de Médecine, and his death was the result of a chill contracted at a meeting on the works. He is succeeded in this appointment by our friend Jean Hulot, whose beautiful drawings of Selinus, prepared during his tenure of the Grand Prix de Rome, were brought to London at the invitation of the Royal Institute in 1908, and exhibited at the Galleries of the Old Water Colour Society.

When shall we see in England a parallel to the career of Gerhardt? What an incentive to the student would be the certainty that, if he gained the great prize of his profession, he would be officially recognised by the Government; that on his return to England after a satisfactory fulfilment of the conditions of his Rome studentship, he would be appointed, at first in some minor capacity, to the care and control of a State building; second, or third, in command, perhaps, at Hampton Court Palace, under one of the great chiefs of his profession; rising, as he proved his capacity and merit, to be principal architect of a smaller Government office or Palace, and, eventually, of Windsor Castle or the Houses of Parliament. His salary would be small, but his professional position assured, and when works to the building of which he had charge had to be carried out, would receive the usual professional fees, he being personally responsible to the Ministry.

But no! the Office of Works absorbs all such

opportunities here; and, instead of encouraging the independent artist, does its best to suppress him.

J. W. S.

ON RUNNING STREAMS THROUGH TOWNS: AN OBJECT LESSON.

SOME years ago the Corporation of Bradford organised a competition for the best scheme for improving the lay-out of the central portion of the city. When the intending competitors received the plan of the city as existing, on which to base their proposals, one feature in it consisted of the course of a stream apparently meandering through it, shown mostly by dotted lines, and labelled "Bradford Beck." In the course of a visit to the city to study the ground, I learned that people then living in Bradford could remember fishing on the banks of this rivulet, then an open brook. Since then it appeared that it had been gradually built over so as to become practically an underground watercourse.

Bradford appeared to me then to be one of the most dull and arid towns, in outward appearance, that I had ever been in; a desert of stony streets, without any relief to the eye. It at once occurred to me that one of the best things that could be done to improve the amenities of the town would be to resurrect the Bradford Beck and turn it into an open running rivulet as a redeeming feature in the city scenery. I was the only competitor who took this view; and the central portion of my plan, which is here reproduced, shows the scheme I proposed. At the left-hand lower corner of the plan, where the Beck first enters on the plan, it would be seen running round a curve between containing walls, with a little circular garden and a fountain on the ground level, within the bend of the curve. Higher up, where the original course of the Beck goes off at an angle, I proposed continuing it in a new channel, with a curve following the line of one of the proposed blocks of new buildings; and planting this open portion of it with a row of clipped trees along the margin.

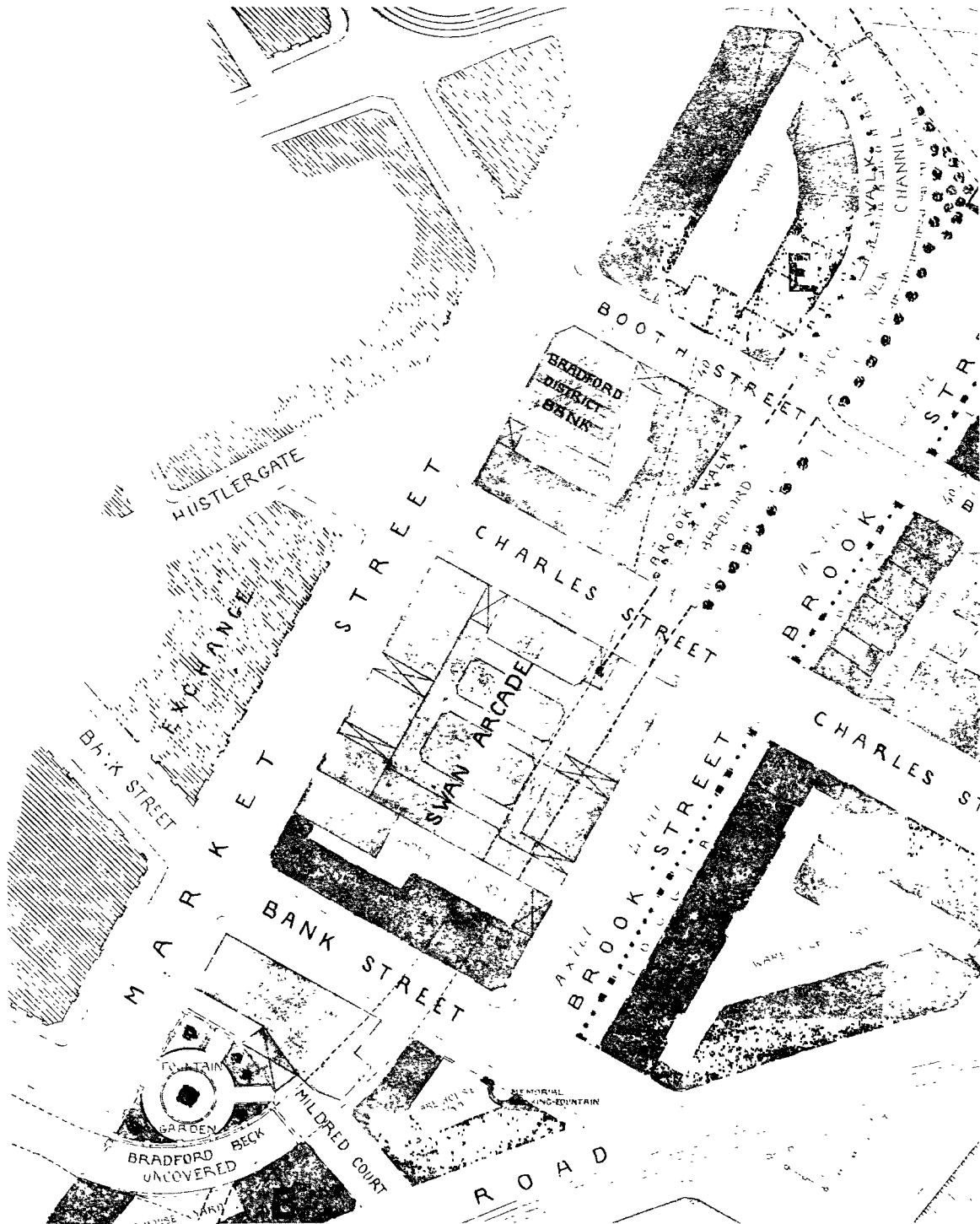
I got little sympathy. The authorities plainly intimated that they did not want to be bothered with the Bradford Beck, having already allowed it to be destroyed; and the then Borough engineer (whose name I unfortunately forget), who introduced himself to me in the exhibition-room of the designs, and showed me a great deal of courteous attention, took me to the outskirts of the town to show me the Beck there as a tumbling mass of drainage. I said: "It is entirely your own faults; you have put a running stream to the worst use you can put it to—viz., to turn drainage into it. If you at once put a stop to that by a special by-law, one rainy month would clear the stream again." What remains is, that Bradford might have had a bright running stream through it, and they have turned it into an underground sewer.

The reason I have not made this little protest at an

earlier date is that my whole set of plans got mislaid for some time, and I have only just recovered them. But though late in the day, I venture to think that

my proposal is worth putting on record—as an object lesson.

H. HEATHCOTE STATHAM [F.].



The central part of Mr. H. H. Statham's plan in the Bradford Improvement Competition, showing the proposal to render the Bradford Beck a feature in the City scenery.

THE LONDON COUNTY HALL.

The R.I.B.A. Visit.

THERE are two or three architectural works of the first magnitude now in course of erection in England. The London County Hall is one of them: a vast structure on one of the most imposing sites in the world, the result of an open competition won by a young man, Mr. Ralph Knott, more than ten years ago, and now nearing completion at his hands.

Many difficulties, not least of them the war, have hindered the progress of the building and distracted the architect from his work: but what great building has ever been erected without difficulties of one kind or another? The real difficulty is to surmount the difficulties, and some sixty members of the Institute who visited the building under Mr. Knott's guidance on Saturday, May 7th, were impressed with the success he is in process of achieving.

The plan, always masterly, has grown more so in the course of the revisions and refinements that have been made—so simple to read that no single member of the party failed to find his way to the tea-room at the appointed hour, or, indeed, to keep touch with either of the parties which Mr. Knott and Mr. Riley conducted over the building from the basement to the roof.

The Council Chamber, unfortunately still obscured with scaffolding, is the centre to which all routes lead, but so arranged that members of the public bent on business with the County Council staff can avoid it and reach the offices of the officials without coming into contact with the County Councillors. For the latter's use a magnificent series of committee-rooms, libraries, refreshment-rooms, etc., is provided close to the Council Chamber, opening on to a raised terrace in the recessed portion of the river front, from which they may contemplate, undisturbed by the pedestrians on the embankment below, the London River and their legislative competitors on the further shore. This semi-circular recess, designed, no doubt, to secure some of the effects of light and shade which otherwise the sun would deny to this northern front, is the motive of the whole design upon which success or failure depends. A bold experiment, and carried out with no uncertain mind. Great columns proclaim it as the central feature, groups of statuary flank it, river steps lead up to it, the roof above is, or will be, surmounted by a fleche rising some 200 feet from the river level. Here is an architectural setting of great daring in the shadow of which our Councillors of the future will meditate on their labours. Standing on this terrace, surrounded though it is at present with scaffold poles and heaps of unfixed masonry, it is clear that Mr. Knott has provided a worthy setting for the work of the London County Council.

Time alone can show if the purpose of this great building has been achieved. If the legislation which comes out of it is marked by the simplicity and large-

ness of idea which dominate it, the architect will have deserved well of the public. Those members of the Institute who availed themselves of the opportunity of seeing the building in its present unfinished state are eager to see it again when the finishing touches are complete and the scaffolding removed.

Mr. Knott has kindly invited the Art Committee to arrange another visit, of which due notice will be given to members.

MAURICE E. WEBB [F.],
Hon. Sec. Art Committee.

THE ANNUAL GENERAL MEETING.

Discussion on the Annual Report.

THE PRESIDENT, MR. JOHN W. SIMPSON, in formally presenting the Annual Report, said that the Institute was now in a condition of activity and well-being that had never before been reached. This was due not only to the work of the Council but to members' great revival of interest in the Institute and to the hearty support they gave to the President and Council in the work they were engaged in. The men who had fought in the War had of course the first claim to consideration, and the Council had been able to help them by means of the Henry Jarvis Studentships and by special concessions in the Examinations. The Council hoped to have done a great deal more for them through the State Housing Scheme, but owing to the general flatness in the business of house-building and to much of the work having been undertaken by Government Departments, the Council had not been able to do as much this year as last. With regard to the Standing Conditions of Contract, there had been a little misunderstanding between the builders and the Institute, which he was glad to inform members had now been entirely removed. A Conference had been called of architects, builders and surveyors, and the Council hoped before long to put before the General Body a form which would constitute a fair model of conditions suitable for building contracts in general. The President went on to say that he proposed, with the permission of the meeting, to vary the procedure usually followed in presenting the Annual Report. He would ask representatives of the Board of Architectural Education and of the Standing and other Committees to say a few words about the special work that had engaged their consideration, and after that it would be open to members to ask questions and to discuss the Report. If he might say so without being invidious, he thought the Literature Committee had greatly distinguished itself by instituting the popular lectures on Architecture. The first of the series, Mr. Clutton Brock's lecture, given the previous week, was enormously attended and was a very great success. He would like to mention also the Art Committee's scheme for instituting a bronze medal every year for the best street façade. This was the beginning of what he hoped would be a still greater scheme to be put into operation throughout the provinces. The idea was to encourage building owners to put up fine and distinguished architectural fronts to their buildings, and when an especially good piece of work was done the Institute would recognise it and award a medal to the author. The Practice Committee were also engaged on an important project, viz., a scheme for the establishment of a Union for Professional Defence, to which not only members of the Institute would belong, but every reputable architect.

Professor BERESFORD PITE [F.], speaking for the Board of Architectural Education, said he was sorry that their chairman, Mr. Waterhouse, was unable to be present. The Board owed a great deal to his constant and skilful conduct of their business. The outstanding matter to which the attention of the Institute might be directed was the growth of the schools of architecture throughout

the country. Since the Board was constituted these schools had prepared syllabuses which were approved by the Board. The teachers were known to, and the schools were recognised by, the Board, and the certificates granted by these schools were accepted by the Institute as exempting from the Intermediate Examination. In each case the Institute appointed its external examiner, in order that these certificates should not be awarded without the Institute's cognisance. The growth of that system had been exceedingly helpful for architecture as an art: it had prevented architectural education from becoming stereotyped, and it had allowed the growth of individuality in the teachers at the different schools; so that Scotland and London need not be cast in the same rigid mould of training and ideas. But it had become obvious that the Institute could not say to schools equipped as these schools were: "You shall educate as you think best, under our supervision, for the Intermediate standard, and shall go no further: your education, so far as we recognise it, stays there." That was an anomalous position, the force of which had been gradually felt by the Board, and they, and the Council, had come to the conclusion that it was necessary to encourage the higher and advanced studies in the schools, as well as the elementary and intermediate studies. And the only way to do this effectively and freely was to allow the schools to inaugurate courses of study for the Final Examination, as they had done for the Intermediate, and to take up the position that the Institute would recognise those courses of study as qualifying for the Final Examination. From the point of view of giving freedom and individuality to the schools of architecture, that was a very wise policy: it encouraged the teachers to specialise in their own particular way for advanced studies. Of course, it might be that a student would go to Liverpool for town planning and somewhere else for ferro-concrete work. That particular character would become a valuable asset to a school, and a school should be allowed to develop it. The important question for the Institute was how this training for the Final Examination would affect the parental character of the Institute, what would be the effect on this progeny which had been reared by foster-mothers in different parts of the country. Personally, he had no anxiety about that matter; the professional instincts cultivated in the cities where these schools are were a very valuable asset to the profession. Professional instinct was not solidified in London only; they could very well trust the provinces. But the Institute had taken the precaution of retaining two important subjects under its own especial direction: one was the subject of professional practice, on which the Final Examination was reserved to the Board of Architectural Education, and the other was that the subjects of design submitted for the Final Examination should be passed by two external examiners appointed by the Institute. So that whilst cultivating and encouraging the growth of higher studies in the younger universities and schools, the Institute was retaining the examination in professional practice and the right to adjudicate upon the designs. This power was very important, and it was hoped that the Institute would recognise the importance of exercising it with the greatest caution, and encourage the independence of the provincial schools as much as possible, while retaining the power which should properly belong to the Institute in London. There was one other matter, one of growing importance, and of real interest. Examinations in architecture, which had come to stay, must of necessity be elastic. They had candidates from India coming to the Institute, and it was obvious that it would be absurd to set an Indian candidate an examination on the London Building Act, or in the materials which were peculiar to London or England. That was a problem which was engaging the attention of the Board, and they had a special committee sitting on it.

Mr. WALTER TAPPER [F.], representing the Art Standing Committee, referred to the visits to buildings which his Committee were organising as an innovation, due to their

admirable honorary secretary, Mr. Maurice Webb. The award of a medal for the best street frontage was, he supposed, the beginning of a Committee of Taste, and the improvement of street frontages which it would help to bring about would be an excellent beginning. Whether it would result in good architecture was a matter of opinion. Good architecture, he thought, did not come in that sort of way. Architecture should express the character of the nation, and unless the nation was sound at heart they would not get sound architecture.

Major H. C. CORLETTE, O.B.E. [F.], representing the Literature Committee, thanked the President for speaking so appreciatively of the effort of the Committee in starting the series of public lectures. He hoped that this small beginning made in London would not end in London, but would be extended to the provinces under the direction of the Allied Societies. One point in the Report the Literature Committee would like to emphasise was the question of Library accommodation. They had one of the most valuable architectural libraries in the world, and the Committee were beginning to feel nervous as to the fate of the Library if sufficient precautions were not taken against fire. Major Corlette also referred to the portrait of A. C. Pugin, of which the Committee had recommended the purchase. It was in a poor state when they acquired it, but they had had it carefully restored, and he felt sure that members who now saw it in the Library, over the mantelpiece in the front room, would agree that the Committee were justified in making the recommendation.

Mr. ALFRED W. S. CROSS, M.A. Cantab. [F.], chairman of the Practice Committee, said that members would understand that the work of that Committee was much more comprehensive in its nature than the annual report would lead the casual reader to imagine. Letters relative to professional practice reached them from all parts of the world. They had often to give advice when they had only *ex parte* statements before them. The work was increasing by leaps and bounds, and at one time they were almost overwhelmed with arrears. Fortunately, there were no slackers on the Practice Committee. By instituting a system of work whereby certain categories of inquiry were relegated to special sub-committees the Committee had managed to clear off those arrears, and he thought they had done very well under the circumstances. They were particularly fortunate in their honorary secretary, Mr. Cubitt (applause), who, for the greater part of the session, bore upon his own shoulders the burden of the Committee's secretarial work. Latterly Mr. Gammell had been associated with him, and to him too the Committee was very much indebted (hear, hear). One thing which struck him in reviewing their work was the terrible risk which architects ran in offering their professional services without having contracts. Every architect working for a corporate body should have a contract, under seal, but that was often a matter in which the architect was ignored. They had had piteous letters asking the Committee to do something, and when they pointed out that they could do nothing, the applicant felt aggrieved, and thought they did not want to do anything. Every architect, whether working for a casual friend or for any one else, should have a recognised agreement as to his charges. It was next to impossible in these days to know what the cost of a building would be, and every client should be told straight out what the scale was: it had to be faced.

Mr. ALAN E. MUNBY, M.A. Cantab. [F.], chairman of the Science Committee, said that outside the Institute it was sometimes asked whether the Institute and its Committees did anything at all. Here was a concrete instance of something they had done: they had got a research started by an expert scientist at a salary of about £800 a year. He was to investigate the atmospheric corrosion of builders' fittings, brass and gunmetal, and later, they hoped, zinc flats, etc. This corrosion of metal fittings caused much trouble, and they hoped to publish reports of the research. The Institute of Metals had helped in getting the appoint-

ment made, and the Industrial Research Department had given half the grant. The Committee had been trying to keep in touch with Cambridge, and, through Mr. Moullin, of the University Architectural School, two or three researches were in process of being started there. He had found the Cambridge professors most willing to take up research work in materials if they could get the necessary information. In fact, the Committee were in touch with numbers of scientific people who would be regarded as pure scientists and rather outside the architect's sphere, but who were anxious to investigate the architect's problems if he would let them know what they were. The Science Committee were making considerable efforts in that direction, and they hoped to get some practical work done at Cambridge during the next year. With regard to building-stones, they had made what was possibly a final survey of the stones which were put on the roof of the Geological Museum ten years ago. Mr. Searles-Wood was one of the original people who drew up the scheme of work, and the Geological Survey had generously carried this out and borne the expenses. He hoped that before long the Committee and Geological Survey authorities would publish a joint report. Mr. Munby went on to speak of the smoke-abatement work, with which Mr. Franck had been particularly associated; of Mr. Burrows's tile tests; Mr. Searles-Wood's work in connection with Colonial timbers; the Committee's researches on dry rot and other timber diseases, and other matters, details of which are given in the Committee's report [pp. 350-53, JOURNAL, 23rd April].

Mr. W. GILMOUR WILSON [F.], vice-chairman of the Competitions Committee, said that the summary given in the report did not in any way represent the amount of work done by the Committee. Their first duty was to ensure that the conditions governing competitions were such as to secure the best possible results both to promoters and competitors, and with this end in view they had held many meetings, and had also considered references from the Council. But the work of the Competitions Committee and of the Council itself could only be effectively carried out by the co-operation of members of the Institute (hear, hear). Unfortunately, outside members seemed to think that if a competition were not barred they were at liberty to enter it. Often the Committee only heard of a competition some two or three days before the plans had to be sent in: and then, of course, it was too late to do anything. But members who prepared plans must know two or three weeks in advance, yet, although the faulty conditions must be obvious to them, they seldom communicated the fact to the Competitions Committee. It ought to be impressed on members that if they went in for any competition the conditions of which were not in accordance with the Institute regulations, they were guilty of unprofessional conduct and were liable to be called to account. To enable this to be more effectually done the Institute ought to enter into much closer association with the Allied Societies. They could to some extent control the districts over which they extended, and that would lighten the work of the central body. They got the information at once, and if they were empowered to deal with the matter direct, or to communicate at once with the Institute and let them take action, that would be an improvement. In order to get promoters to fall into line with the Institute regulations the secretary of the Committee had communicated with the promoters, and that had entailed much correspondence. He was glad to say that very often promoters who had been approached in this way had come into line with the regulations. He was able to make the satisfactory statement that these regulations were being more and more adopted by promoters throughout the country. The Committee had had under consideration the question of the premiums to be paid in competitions, and had been met with the difficulty that if they insisted upon the premiums being to such an amount as they thought they were entitled to, the promoters would feel they were involved in an additional cost which was not justified; and

where there were official architects working on corporate bodies the danger was that the work might be diverted into their hands. The matter was still under consideration, and he hoped they would hit upon a happy medium. There was one other point, and as acting chairman he thought he ought to state it. There might be the most perfectly organised competition, both from the Institute's and also from the promoter's point of view. There might be a splendid response to the competition, but if the architect who was appointed to judge the plans was not the right man, then the whole thing was of no use (hear, hear). Assessors in competitions should have special qualifications. The first qualification he always has had—that is to say, he should be a man of unquestioned probity and professional standing. He should be a man of affairs, and possessed of the judicial mind. He should be strong and tactful in his dealings with the promoters, and he should be thoroughly conversant with the type of building required (applause). It was very unfortunate when a competition was badly assessed and the promoters felt that they had not been in the best hands. In more cases than one this had occurred, and it had given the architect's cause a throw-back. Some years ago a President of the Institute wrote to the Competitions Committee asking them to send in a list of men whom they thought competent to act as assessors in relation to various types of buildings. He was not bound to take these names: they were to be simply as a guide. The Competitions Committee debated the matter very carefully; the late Mr. Hare was chairman, and members might be sure that with him in the chair nothing was done frivolously. The list was sent in and was treated as the schoolmaster treated the poulterer (applause). (Several members: May we have the rest of the story?) Well, gentlemen, a schoolmaster went into a poulterer's shop and saw twelve birds laid out on the counter. He said: "I have got some very hungry boys at my school; they always want second helpings. Will you pick out six of the toughest birds from these?" The poulterer made a selection. Then the schoolmaster said: "You are sure these are the six toughest?" The shopman replied, "Quite certain." "Then," said the schoolmaster, "I will take the other six." (Laughter.)

Mr. SYDNEY PERKS, F.S.A. [F.], chairman of the Finance and House Committee, said his Committee had met very frequently, the attendances had always been good, and they had been favoured on more than one occasion with the presence of the President. Comparing the income and expenditure of the last budget with the present, in the first place the rates and taxes had been increased from £977 to £1,062. Most of the other items of expenditure showed increases, partly due to higher prices. There had been practically no rise in the salaries, all that had been done had been to grant a bonus to bring them nearer to their pre-war value, as had been done in the Civil Service, the County Council, and the various municipal bodies throughout the country. The general printing, which had risen from £1,126 to £1,505, was a good indication of the trend of the work generally. Repairs which amounted to only £261 in 1919 were £753 for the year under review. The galleries, which had got into a terrible state, had been thoroughly repaired and redecorated. The street front had been painted, hot water provided, and various other things done for the convenience of members. The cost of exhibitions had risen from £86 to £261. The rise in the cost of the JOURNAL was mainly due to the fact that the issues were now fortnightly instead of monthly, and the cost went up from £1,717 to £2,023. For medals and prizes there was nothing in the budget for 1919, but there was £247 in the present year. The item for printing the KALENDAR, which had been suspended since 1916, was £520, a charge which did not occur in 1919. Grants to learned and scientific societies had risen from £247 to £320. He would like to call attention to the item for Fellows' subscriptions, £3,460, and arrears from Fellows, £492. He had always had a doubt whether that meant that the Institute had received

the cash, or whether the amount was owing. It was, however, cash received for arrears, and he hoped it would be plainly put as such in future. The arrears, he thought, had been paid up very well. They received for examination fees £1,200 more than during 1919; but a large part was non-recurring. The Licentiate's examination for Fellowship came to an end last December, so they would receive nothing under that head in future. There was £1,000 for special war exemptions, and this would, naturally, decrease in future. For letting the galleries there had been a great drop. In 1920 the income was £76, whereas in 1919 it was £557. That was from special lettings, including one to the *Daily Mail*. But the Committee felt that their galleries ought to be kept as much as possible for our own exhibitions in connection with architecture (hear, hear), and he believed that was the President's idea too. The Committee thought there would be a heavy deficit this year, but there was not. It was only about £1,000, and the subscriptions were going up. They should feel the good effect of that next year, when they ought to have a very satisfactory balance sheet—that is to say, they should have more money to spend, and he hoped they would spend it properly. At one of the meetings he had been very much struck by what Mr. Cubitt said as a member of the Finance Committee. Mr. Cubitt thought it was a fundamental principle that the Finance Committee should consider the expenditure of money principally for the benefit of the members who paid that money; that should be their primary consideration. It was nice, of course, to give money away in scholarships and grants to different bodies, but in an institution like their own the primary object should be to spend money for the benefit of the members. He would like to say, in conclusion, that Mr. MacAlister had attended all the meetings of the Finance Committee; he had a wonderful grip of the Institute finances, and they were very much indebted to him. The Committee were also indebted to Mr. Webb and Mr. Stanley Hamp, who had a scheme which he hoped they would hear more of, as it affected finance. There was one item he would like to see altered in future in the balance sheet. It said, at the foot of the expenditure account: "A fine of £7 per annum is payable every 14 years in respect of the premises under a lease from the Corporation of the City of London." That was not correct; a fine of so much a year would really be rent. A fine of £98 was payable every 14 years, which came to so much per annum, but it was not paid until the end of the fourteenth year, and it next became due at Lady-day, 1922. The Committee had made many suggestions to the Council, and they were gratified to find that not a single suggestion had been turned down during the whole time. (Applause.)

Mr. W. R. DAVIDGE [A.] said he was sorry Sir Aston Webb, the chairman of the Town Planning Committee, was unable to be present to speak on the work of the Committee. He would like to draw special attention to the fact that now that town planning was becoming compulsory for all communities with a population of over 20,000, it was the Committee's earnest wish that architects should be appointed in connection with these schemes. So far as the Committee and the Allied Societies were concerned, they would endeavour to see that that was done. At the Committee's suggestion the Council had addressed a letter to the Allied Societies, and most of them had expressed their desire to co-operate as far as possible in securing the appointment of an architect in the case of each of these schemes. There were two or three hundred towns in Great Britain which must compulsorily come in in the next two or three years, and the Institute and the Allied Societies should be wide awake to that fact. With regard to the arterial roads, he was glad to add to the information given in the Report by stating that a considerable number of additional roads had been commenced by the Ministry of Transport as a means of finding employment for unemployed men, not only the Western Avenue, but also the South Circular Road, Shooter's Hill Bye-pass, Eastern

Avenue, New Cambridge Road, North Circular Road, and the New Chertsey Road. Ten or twelve boroughs in and around London, and many more in the country, had projected roads, and work was actually proceeding. The Town Planning Committee and various bodies with which they were working had been pushing this matter forward, and the result showed that if pressed hard enough the Government would give way at last. Under the Unemployment (Relief Works) Act, 1920, anybody's property could be yielded up on seven days' notice, to find work for the unemployed. He would hand in the list of new roads in order that they might be included in the JOURNAL. With regard to town planning, if members would let the Committee know of any point in town or country which they ought to watch, the Committee would be up and doing as soon as the information reached them. It was essentially a watch committee, not only to watch municipalities, but also the Government itself (applause).

The PRESIDENT said he would now formally move the adoption of the Report, and ask the Honorary Secretary, Mr. Keen, to second it. There would then be an opportunity for members who wished to criticise the Report to do so. They owed their thanks to the representatives of Committees for the interesting and lucid explanations of the work of their Committees. He had remarked the clever and ingenious way in which each one had endeavoured to turn the flank of the Council and secure the sympathy of the meeting for his Committee's own particular objects. He would only ask them to remember that, while the Council did not treat the Committees as the schoolmaster treated the poulterer, yet they were obliged to exercise that virtue which Mr. Wilson spoke of with regard to the work of his Committee, and that is, to compromise. The Council must take into view the requirements of all the Committees, and of the Institute as a whole. It was not always possible to carry out the magnificent ideas put before them by the Committees.

Mr. ARTHUR KEEN seconded the motion.

Mr. WM. WOODWARD [F.] said that previous speakers had taken all the wind out of his sails, but he would, nevertheless, indulge in a brief review of the Report. This was the 26th year in succession that he had had the pleasure of performing that function. His first words must be in sorrowful comment on the Obituary. Their friend and past President, Mr. Henry T. Hare, was among those whose loss they lamented. Another, whom he was honoured by being able to call his friend, was Sir William Richmond, who they would all agree was the embodiment of an artist and a gentleman. But it was a satisfaction to know that only one Associate and five students were further notified as having fallen in the war. On page 343, under the head of "Appointments," very little information was given. He was sure many members would be glad to have more information as to the Industrial Council for the Building Industry. He had looked forward to the report of that Council with very great interest. With regard to the prizes and studentships, they all remembered Mr. Burke Downing's review of the beautiful sets of drawings for an Italian villa sent in for the Tite Prize; it was an exhibition of skill, ability, and patience which he had never seen before in these competitions. The membership showed an increase of 188, which was very satisfactory. The grant of a hundred guineas to the Westminster Abbey restoration fund was most commendable; a better object for a grant could not be found. They all agreed, too, with the award of the Royal Gold Medal to Sir Edwin Lutyens; the award had met with the unanimous approval not only of the members of the Institute, but of the public generally. With regard to architects in the provinces (page 344), he was very glad to see that the President had been able to carry out his original idea of visiting important provincial societies, and because of his (Mr. Woodward's) experience of the Visits of the Surveyors' Institution he was particularly delighted that there would be conferences held in important provincial centres. In the case of the Surveyors'

Institution, these visits had brought the greatest benefit, it had enabled the London men to become acquainted with the various lines of thought in the provinces. He was sure they would be well received in Liverpool. Touching the Conditions of Contract, perhaps he had better not say all he thought about that subject. He felt sure that it was the intention of the Contracts Sub-Committee that before these Conditions were published, they should be submitted to the general body for discussion; it was a dangerous precedent to issue such a document before that was done. He had perused the old conditions, also those of the Society of Architects, and the Model Forms of Tender and Contract of the Ministry of Health Housing Department, and by culling the best of the provisions in those schedules he thought he could compile a set of Conditions of Contract which would meet with the approval of clients, architects, quantity surveyors, clerks of works, and builders, and when he had done it he hoped to bring it before the Institute. With regard to improvement of street architecture, that was a subject on which Professor Beresford Pite and others in that room might have something to say. For himself he would endorse what Sir Edwin Lutyens said in *The Times* the other day, that Nash had a far better idea of the appropriate architecture for the Regent Quadrant, and for the rest of the buildings in Regent Street, than could be found in the efforts of present-day architects. He would invite them to look at Jay's, at the corner of Oxford Circus, and note the dehcacy of the architecture and the beautiful proportions. Then to walk to Piccadilly Circus and see whether they didn't agree with Sir Edwin Lutyens. In the report of the Literature Committee there was a reference to the transference of the Library to the Galleries on the ground floor, with structural alterations in the present Library so as to adapt it for a meeting room. That was a very tall order indeed, and bearing in mind the alterations made in the building by Mr. Hare some years ago, he hoped that the complete plans of the proposed alterations would be brought before members before they were put in hand. They were all sorry to hear of the resignation, through ill-health, of Mr. Keith; he was a very attentive young fellow in the Library, and they regretted the reason of his resignation (hear, hear). He was glad to see that the attendance of readers in the Reference Library had increased from 5,194 in 1919 to 7,963 in 1920. With regard to the Committees as a whole, he thought no member should consent to serve on a committee unless he was prepared to do his best to serve on it and attend as many meetings as he could; and if a meeting was called for 4.30 he should be there at 4.30, and not turn up at 4.45, and then ask to be posted up as to what had taken place. With regard to the Office of Works and Housing, the very vague statement that was made by the Practice Committee had been toned down since the report was first drafted. What he wanted to know was what the Office of Works was really doing, and what it cost to do it. What was it doing in architecture and building, and how did its ramifications affect, or were likely to affect, the status and prosperity of the independent architect. Mr. Cross had mentioned that the Practice Committee had received many applications for advice on matters of professional practice, but it should be made clear that the Committee could not deal with any applicant unless he were a member of the Institute. He thought that should be clearly understood; it would be an extra inducement to a man to belong to the Institute. With regard to science research, was it intended to spend £800 a year in investigating the perishing of builders' ironmongery? Where was the money coming from?

The PRESIDENT: There is no intention on the part of the Institute to provide £800 a year for that purpose. All we have done is to subscribe £10.

Mr. WOODWARD, continuing, said he was sorry to find there was no grant this year to the Architects' Benevolent Fund; usually they gave £100, but he noted that an extra £125 was given to the Architectural Association Endow-

ment Fund. The general expenditure had risen from £11,979 last year to £15,455 this year, a total increase of £3,476. He was glad to see the retiring allowance to the old housekeeper. The subscriptions in arrears for 1919 and previously were £2,610, but this year it was only £930; £1,680 cleared off—a most satisfactory state of things. In the rough estimate for 1921 the ordinary expenditure was put down as £19,325, or £4,000 more than in 1920. The JOURNAL was to cost £700 more. Last year he expressed the hope that the expenditure on the JOURNAL would be reduced, but doubtless the increase was due to the increased membership, as more copies had to be printed. In conclusion, he would refer to the staff and the President. They admired and regarded with the utmost satisfaction the work of the staff; there was not one member of it, from Mr. MacAlister downwards, who was not perfectly willing to give of his best intelligence and usefulness. The number of years the staff had been with them was in itself a good record, for it showed two things—first, that the staff were satisfied, and, secondly, that the Institute were satisfied with the staff. And now he came to the most pleasant part of his duty, to speak about their dear President, whose term in that office was approaching its end. He would like to recall to the meeting what he (Mr. Woodward) said in commenting on the Annual Report for 1918: "We all know that the chair will be occupied by a man excellent in every way, who, I think, will do good for the Royal Institute of British Architects, Mr. Simpson." He was sure that every member of the Institute would agree that his prediction had been thoroughly realised (applause). Mr. Simpson had fulfilled his functions in a way that had won for him the admiration and the gratitude of all. In the early part of the period he had broken down in health, but in spite of this he had stuck to his work, and had done his best throughout.

Mr. JOHN SLATER, Past Vice-President, rising at the invitation of the President, said he had been associated with the work of the Institute for so many years that he would like to express the satisfaction he felt with the Report. As a past chairman of the Board of Education he thoroughly agreed with the policy which had been recently adopted. The Institute never wanted examinations for the sake of examinations, but only for the sake of promoting education, and it was right that they should accept the examinations of the universities and the recognised schools in lieu of their own. There was one little matter on which he would offer a word of criticism. The report of the Competitions Committee stated that the Council had made a grant of a hundred guineas to prosecute the claim of a member of the Institute. That was a very dangerous precedent, he thought. The Practice Committee were asked to look into the matter and advise whether an action should be brought. That was not work which the Practice Committee were competent to do; and the fact that this grant was made on a speculative matter, before the Council knew whether the action had a chance of succeeding or not, was a great mistake. He admitted the member was very hardly used—he had every sympathy with him—but, as it happened, the member for whom the sum was granted had to come to the Institute and say that he had consulted a solicitor and had been advised that he had no case. If the Practice Committee, or the Council, took upon themselves to advise a member whether to bring actions or not, they would be in a very awkward position; if they advised action to be taken, and it failed, the Council would naturally be blamed for encouraging him to go on. It would be different if a member of the Institute had fought a case which materially affected the members as a body, and had been put to great expense in maintaining his cause. In those circumstances the Institute might very properly make a contribution towards his expenses. That was his only criticism. He congratulated the Institute on its Report, and was very pleased at the new departure in getting the chairmen of Committees to speak personally of their particular work.

Mr. HERBERT A. WELCH [A.], hon. secretary of the Competitions Committee, asked leave to offer a word of explanation on the point raised by Mr. Slater. Mr. Slater was under a misapprehension. It was not correct to say that the sum of money was voted without knowing whether the architect had a good case or not. The architect was considered to have been badly treated. The Committee reported the matter to the Council, who at once took counsel's opinion upon the case. That opinion was forwarded to the Competitions Committee, who considered it in detail, but were doubtful as to its meaning in certain particulars. They therefore took a second counsel's opinion, which appeared to be more clear, and this commended itself to the Competitions Committee. They advised the Council that it was a case to assist, and the Council decided to vote a hundred guineas towards the costs in the action. The Competitions Committee recommended and the Council acted only after the most careful consideration of the case.

Mr. SLATER: I am acquainted with the facts, but neither the Competitions Committee nor the Council had the whole of the facts before them. When these facts were brought to the notice of the solicitor, he said there was no case. I am not blaming the Committee; but it was a bad precedent to vote a sum of money without knowing whether the case was a strong one or not.

Mr. WILSON: Both the Council and the Committee had all the facts before them. Opinions differ, even in the legal sphere. The facts were very simple. I should like to say that the thanks of the Institute are due to Mr. Welch for his strenuous work on the Competitions Committee.

The motion for the adoption of the Report was then put, and carried unanimously.

On the motion of Mr. WOODWARD, seconded by Mr. PERKS, a hearty vote of thanks was accorded to Messrs. Goslett and Hutchinson for their work in auditing the year's accounts.

Mr. DAVIDGE: I am sure the meeting would very cordially endorse Mr. Woodward's remarks concerning the staff; we cannot put too strongly, I think, our appreciation of their work. (Applause.)

The PRESIDENT: I am extremely glad to associate myself with what has been said with regard to the staff. I think it is a perfectly admirable staff. And if I mention more particularly the name of Mr. MacAlister, it is because I have necessarily been so closely associated with him in my work on the Council, and know more intimately the work he does.

Mr. JOHN HUDSON [F.] and Mr. A. W. SHEPPARD [A.] were nominated to serve as Honorary Auditors for the ensuing year. The proceedings then terminated.

To the Editor, JOURNAL R.I.B.A.—

SIR.—In spite of the inspired remarks of one of the speakers, I do not think the Council's unjustified and unjustifiable breaking of traditions found any favour with the meeting on the 2nd inst. I refer to the time-honoured custom of the Report being open for criticism. This being, as a rule, somewhat searching, gives rise to the impious thought that the hour and a half which was spent by the representatives of the various Committees was chiefly useful not so much to disarm criticism as to preclude it. Even Mr. Woodward, whose memorable custom it is to deal most faithfully with the Report in detail, had not the time at his disposal to carry out his task, still less the younger members present. It is, in my opinion, a most regrettable innovation that members of the Institute should, in effect, be robbed of the opportunity of even asking questions on matters of fact.

I might question, in passing, the legality, advisability or necessity of publishing the Annual Report a week before it is laid before the members for confirmation. This extraordinary proceeding bears out the views expressed above.

There are many points in this Annual Report which call for comment, and I beg to trespass on your space to deal with a few of these.

The Annual Report leads off with a Schedule of a full score of Special Committees, but in spite of the statement that particulars of the work of these Committees are embodied in the Report, I cannot find that even in those cases where statements are actually made any real information is given.

Membership.—No explanation was given as to why there was so rapid a fall last year in the Licentiate class. Is it not accounted for by the horrifying fact that over 100 Licentiates have been pressed into Fellowship?

Grants.—There appears to be a discrepancy with regard to the £100 grant to the Architects' Benevolent Society, which, it is stated on page 312, was made during last year and yet does not appear on the Income and Expenditure Account.

Appointments.—The Institute have appointed a large number of representatives to act on various bodies, but the services thus rendered by the Institute to the community are apparently lost to the profession. The work never appears to crystallise, or at any rate the members of the Institute are not kept informed of developments, although they have the first right to information on these points.

Of the 11 Committees or Conferences categorised I do not remember having read a word in the JOURNAL or elsewhere embodying the result of their deliberations. Some of their titles are delightfully nebulous, and it would be interesting to know with what objects they have been formulated.

Conditions of Contract.—The Institute are casually informed that a Conference has been arranged of architects, surveyors and builders on the question of conditions of contract, but in view of the importance of the subject and the fact that the Institute has recently committed itself by publishing the long-considered revision of the Form of Contract, one cannot help feeling that some information as to the constitution and objects of this Conference is badly wanted.

Scale of Fees for Housing.—Members are informed that negotiations have been carried on with the Ministry of Health in connection with the Scale of Fees for Housing Work. It is surprising to read on page 313 that the deputation which waited upon the Minister of Health did not contain, so far as my information goes, a single member of the Scale of Fees Committee, and, indeed, this Committee, which has all the information possible on the subject and has considered it in all its aspects, have never been consulted, as I understand the matter, at all, a procedure which is slighting to the Committee and provocative of abortive work.

Unification and Registration.—This matter of supreme importance to the Institute is dismissed in five lines, which can only mean (if indeed they mean anything whatever) that four different bodies are in course of bandying draft reports one to the other. If this is the case, when the matter reaches the main body all interest in it will be dead, and I suppose it will, as usual, be counted out. Whilst on this point, might one ask who are the following four Committees alluded to in the five-line paragraph * :—

- (a) The Representative Committee.
- (b) The Sub-Committee.
- (c) The Councils of the constituent bodies.
- (d) The main Committee.

Attendances.—Reports of the Standing and certain other Committees follow, but with one ill-starred exception they refrain from scheduling the attendances. The exception referred to is the Competitions Committee. The energy and application of this Committee were spoken of in the most eulogistic terms, but although it consists of 18 members it is obviously run by 4. The 14 other members failed to attend 50 per cent. of the meetings, and as many as 7 attended one or none.

Scale of Fees for Housing Work.—In the Report of the Practice Standing Committee anxious members are informed that there has been a special increase in the Scale of Housing Fees with regard to Road and Sewer Work. The existence of this special increase has escaped many architects whose work is almost exclusively in this direction, and, indeed, the reverse even appears to be the case, namely, the fees in General Housing Memorandum No. 31, issued by the Ministry of Health, are more remunerative in this particular connection than the fees printed in the KALENDAR on page 317. Whether the concession is deliberately entered into by the Institute, or whether it arises from errors of phraseology, I have no information.

Speaking generally of the reports of Committees, the somewhat turgid statements which appear in the Annual Report are practically useless. There seems to be an endeavour to inflate the work done during the Session, but in fact there is little or nothing reported that is of any value to the members. The work of the Standing Committees should, of course, be published in the JOURNAL for the information of members as and when their work matures.

Report of Competitions Committee.—The news that the Institute in two cases assisted competitors where attempts had been made on behalf of the promoters to avoid their proper liabilities, is the best reading in the whole Report, and one can only hope that the revival of competitions with the concurrent machinations of the promoters will bring up again the question of the Architects' Defence Committee so urgently pressed by my friend Mr. Gammell a few years ago,

and which unfortunately died through sheer apathy on the part of the members.

Income and Expenditure Account.—The cost of printing and postage of the KALENDAR, amounting to over £500, is scarcely justifiable. A considerable portion of the bulk of this volume is made up of static matter which should be published separately in pamphlet form for 6d. or 1s. This would not only relieve considerably the cost of printing and postage, but would be a source of income to the Institute and much more useful in this form to Members.

The fire insurance premium of £88 seems to be quite inadequate to cover all proper risks, especially on the basis of the £75,000 revaluation, which, by the way, should, I suppose, read "Premises and Contents" in the Balance Sheet.

The annual income from advertisements is still ridiculously small and should certainly not be less than £1,000.

Subscriptions in arrear for 1919 and previously on the Balance Sheet, amounting to nearly £1,000, should no longer stand as an asset. There is no necessity for the Institute to hoodwink itself and its members in this way as to its real financial position.

Yours &c.,

PERCIVAL M. FRASER [F.].

UNIFICATION AND REGISTRATION.

Sub-Committee's Report : Alternative Proposals : Main Committee's Resolutions.

A meeting of the Committee on Unification and Registration, called to receive the report of the Sub-Committee putting forward alternative proposals for unification based respectively on Absorption and Federation,* was held at the Institute on Thursday, 12th May 1921.

Present :

Mr. John W. Simpson, President R.I.B.A., in the Chair
Representatives of the R.I.B.A.—Mr. Paul Waterhouse, Sir Banister Fletcher, Mr. Arthur Keen, Mr. E. Stanley Hall, Mr. James S. Gibson, *Editors*, Mr. Horace Cubitt, Mr. K. Gammell, Mr. W. R. Davidge, Mr. Digby L. Solomon, Mr. P. W. Hubbard, Mr. Herbert A. Welch, *Associates*—Mr. H. Ascroft, Mr. H. R. Bird, Mr. George Carter, Mr. A. J. Penty, Mr. Francis R. Taylor, Mr. Samuel Taylor, Mr. J. E. Verbury, *Lieutenants*
Representatives of Allied Societies in the United Kingdom—Mr. H. T. Buckland (Birmingham), Mr. G. C. Lawrence (Bristol), Mr. Lewis F. Toner (Devon and Exeter), Mr. W. T. Oldrieve (Edinburgh), Mr. A. H. Hind (Leicester), Mr. C. B. Flockton (Sheffield), Mr. Ivor Jones (S. Wales), Mr. L. Kitchen (York), Mr. A. L. Roberts (Hants and I. of W.).
Representatives of Allied Societies in the Dominions—Major H. C. Corlett O.B.E. (Australia).
Representative of Architectural Association—Mr. Maurice Webb, D.S.O., M.C.
Representatives of the Society of Architects—Sir Charles Ruthen, O.B.E., Mr. Edwin J. Sadgrove, Mr. A. Burnett Brown, Mr. George H. Paine, Mr. Noel D. Sheffield, Mr. Edwin J. Partridge, Mr. C. McArthur Butler.
Representative of the Architects' and Surveyors' Assistants' Professional Union—Mr. Charles McLachlan.
Representative of Official Architects' Association—Mr. Sydney Perks, F.S.A.
Representative of Architects unattached to any Professional Organisation—Mr. G. E. Marshall (Liverpool).
 Ian MacAlister, *Secretary*.

The Sub-Committee's Report, copies of which had been issued to every member of the main Committee several days prior to the meeting, was as follows :—

* Particulars of the constitution of the Unification Committee were published in the JOURNAL, 26th June 1920, p. 403, 31st July, p. 428; and in the KALENDAR, p. 5—E.D.

* See report of the first meeting, 20th July 1920 (JOURNAL, 28th August 1920, pp. 445 sqq.).

REPORT OF THE SUB-COMMITTEE.

(Appointed 20th July, 1920; reported 6th April, 1921.)

REFERENCE: "That it be an instruction to the Sub-Committee to draft and submit to the Committee alternative proposals for unification based respectively on absorption and federation."

[*Note*—The proposal for absorption was referred to in the discussion by the Committee as "Scheme A," that for federation as "Scheme B." The Chairman has ruled that consideration by the Sub-Committee of the subject of registration, in connection with unification, is not precluded by the terms of the Reference.]

Members of the Sub-Committee.—Major H. Barnes, M.P., Mr. H. T. Buckland, Mr. H. Cubitt, Mr. L. Elkington, Mr. L. Evans, Sir Banister Fletcher, Mr. J. S. Gibson, Mr. A. Keen (Hon. Secretary), Mr. MacArthur Butler, Mr. G. E. Marshall, Mr. W. E. Riley, Sir C. Ruthen (Vice-Chairman), Mr. E. J. Sadgrove, Mr. N. Sheffield, Mr. John W. Simpson (Chairman), Mr. M. E. Webb, Mr. H. A. Welch, Mr. W. B. Whitie, and Mr. J. E. Yerbury.

PRELIMINARY.

Par. 1.—It was deemed advisable by the Sub-Committee to define, at the outset, the objects which it is sought to attain by Unification, since these are common both to "Scheme A" and "Scheme B." Paragraph 2 should therefore be read as forming the Introduction to each proposal.

Par. 2.—These objects are as follows:—

A. To unify, co-ordinate, foster, and protect the interests of Architecture.

B. To provide an organisation representing all qualified Architects * which shall:—

- (1) Express their opinions and decisions upon all public and professional matters affecting their aims and interests, and take such speedy and effective action as may be desirable in order to support, promote and defend such aims and interests.
- (2) Establish and enforce a proper standard of professional conduct.
- (3) Promote the education and statutory Registration of Architects.
- (4) Maintain proper relations with other organisations in all matters relating to building
- (5) Stimulate and direct public opinion to an appreciation of architecture.

C. To use all lawful means to secure the foregoing objects.

"SCHEME A" (I).

Par. 3.—The Sub-Committee submit that the following preliminary steps should be taken if the Committee adopt *Absorption* as the basis for unification.

- (a) That the Council of the Royal Institute of British Architects appoint a "Board of Incorporation" with salaried assistance. This Board to consist of the members of the present Committee on Unification and Registration, together with such other members as they may elect, provided that the total number of members of the Board be not more than one hundred.
- (b) That it be the duty of the Board so appointed to prepare as soon as possible and send to all Architectural Societies and Organisations, and (so far as may be reasonably possible) to all architects not belonging to any Architectural Society or Organisation, a Memorandum inviting those qualified (not being already members) to become members of the Royal Institute of British Architects before the expiry of twelve months from the date of issue. This Memorandum shall set forth the proposals of the Sub-Committee contained in Par. 4 (with such amendments thereto as the Board may direct) and the objects to be attained by unification as indicated in Par. 2 of the present Report. It shall be accompanied by a form for signature accepting the said invitation

- (c) That it be also the duty of the Board to prepare as soon as possible and circulate (in like manner to the last) a Supplementary Memorandum showing the alterations proposed by the Royal Institute of British Architects to their present Charter and Bye-Laws in order to give effect to the proposals above mentioned.
- (d) That the Council of the Royal Institute take the necessary steps to obtain the consent of the Privy Council to the aforesaid alterations to the Charter and Bye-Laws without delay.

(II).

Par. 4.—The Sub-Committee submit the following outline of proposals for unification on the basis of *Absorption*:

- (a) That "Scheme A" be termed INCORPORATION OF THE ARCHITECTURAL PROFESSION.
- (b) That all architects who are qualified for membership shall in future be incorporated in one organisation.
- (c) That this organisation shall be the Royal Institute of British Architects, which shall consist, as at present, of classes of professional subscribing and voting members, classes of honorary members, and of students.
- (d) That all architects qualified for membership shall be entitled to be admitted forthwith to the class appropriate to their qualifications (of which qualifications the Board of Incorporation shall be the sole judge) and that the names of all professional subscribing and voting members shall be forthwith inscribed upon a Register.
- (e) That all architects shall be deemed to be qualified for membership, who
 - (1) Have passed the Qualifying Examination of the Royal Institute.
 - (2) Can satisfy the Board of Incorporation that they are and have been for five years in *bona fide* practice as architects, or are and have been for a like period *bona fide* assistant architects.
 - (3) Are students who have passed or been exempted from the Intermediate Examination of the Royal Institute of British Architects, or other examination recognised as equivalent thereto by the Board of Incorporation.
- (f) The Royal Institute shall have power to govern the professional practice, education, examination, registration, and remuneration of all architects: to regulate the conduct of architectural competitions; to undertake the benevolent assistance and the defence of members of the Profession; and to control the relations of the profession with other branches of the Building Industry, Government Departments, and Public Bodies.
- (g) That the Royal Institute of British Architects shall after giving twelve months' notice of their intention to do so (during which period all qualified architects shall be invited to become members) present to Parliament a Registration Bill prohibiting persons whose names are not upon the Register from practising under the style of "Architect," or under any style containing the words "Architect" or "Architectural," after a date to be determined: and shall prosecute the Bill with vigour until it becomes an Act of Parliament.
- (h) Save as they may be affected by the foregoing proposals the constitution of existing Architectural Societies or Organisations shall remain as heretofore.

"SCHEME B" (I).

Par. 5.—The Sub-Committee submit that the following preliminary steps should be taken if the Committee adopt *Federation* as the basis for unification:—

- (a) That a Federated Council, with salaried assistance, be formed from the existing Architectural Societies. This Federated Council to include all the members of the present Committee on Unification and Registration, together with such other members as they may elect, provided that the total number of members of the Federated Council be not more than one hundred.

* DEFINITION.—The word "architects" in this Report, unless otherwise defined, means "architect," assistant architects and student architects in the United Kingdom."

- (b) That it be the duty of the Federated Council to prepare as soon as possible and send (so far as may be reasonably possible) to all architects not belonging to any Architectural Society or Organisation, a Memorandum inviting those qualified to become members of one of the existing Architectural Societies before the expiry of twelve months from the date of issue. This Memorandum shall set forth the proposals of the Sub-Committee contained in Par. 6 (with such amendments thereto as the Federated Council may direct), and the objects to be attained by Unification, as indicated in Par. 2 of the present Report. It shall be accompanied by a form for signature accepting the said invitation.
- (c) That it be also the duty of the Federated Council to prepare and circulate for the consideration of all the existing Architectural Societies and (so far as may be reasonably possible) of all architects not belonging to any Architectural Society or Organisation, a scheme for the constitution and financial basis of the Federation.

(II).

Par. 6.—The Sub-Committee submit the following outline of proposals for unification on the basis of *Federation* :—

- (a) That "Scheme B" be termed THE FEDERATION OF ARCHITECTURAL SOCIETIES.
- (b) That all Architects who are qualified for professional membership be entitled to admission to one of the constituent bodies of the Federation.
- (c) That the constituent bodies of the Federation be the existing Architectural Societies.
- (d) The Federated Council shall determine the standard of attainment qualifying for admission to membership of the said Societies; but no architect shall be deemed to be qualified for membership unless he :—
- (1) Can satisfy the Federated Council that he is and has been for five years in *bona fide* practice as an architect or is and has been for a like period a *bona fide* assistant architect.
 - (2) Is a student who has passed an examination satisfactory to the Federated Council.
- (e) That the names of all professional subscribing and voting members of the constituent bodies of the Federation shall be inscribed upon a Register.
- (f) The Federated Council shall have power to regulate the conditions of membership, entrance fees, subscriptions, and Bye-Laws of the constituent bodies of the Federation; to govern the professional practice, education, examination, registration, and remuneration of all architects; to regulate the conduct of architectural competitions; to undertake the benevolent assistance and the defence of members of the Federation; and to control the relations of the profession with other branches of the Building Industry, Government Departments, and Public Bodies.
- (g) That the Federated Council shall, after giving twelve months' notice of their intention to do so (during which period all qualified architects shall be invited to become members of the Federation), present to Parliament a Registration Bill prohibiting persons whose names are not upon the Register from practising under the style of "Architect," or under any style containing the words "Architect" or "Architectural," after a date to be determined; and shall prosecute the Bill with vigour until it becomes an Act of Parliament.
- (h) Save as they may be affected by the foregoing proposals the constitution of existing Architectural Societies or Organisations shall remain as heretofore.

SUMMARY OF REPORT.

Par. 7.—1. "Scheme A" (INCORPORATION) provides for the admission to the Royal Institute of all architects in *bona fide* practice, or otherwise qualified, for their registration by Act of Parliament, and for the elimination of unqualified practitioners. Existing Architectural Societies and Organisations remain autonomous as heretofore.

2. "Scheme B" (FEDERATION) provides for the admission of such architects to any existing Architectural Society and for the government of all the Societies by a Federated Council. It also provides for the registration of members of the constituent bodies of the Federation by Act of Parliament and for the elimination of unqualified practitioners. In order to guard against varying standards of qualification for admission in different Societies, which might lead to the flooding of the less stringent Societies and undesirable competition in the matter of entrance fees and subscriptions, it has been necessary to provide in this scheme for revising and standardising their constitutions.

3. As regards the time needed to bring the respective schemes into operation :—

- (a) "Scheme A" implies revision of the present Charter and Bye-Laws of the Royal Institute in order to admit architects who have not passed the Qualifying Examinations, and the approval of the Privy Council will be required to the proposed alterations. This approval is not likely to be withheld and the procedure is expeditious. The legal redrafting may occupy some six months. Twelve months' notice of the intention to bring in a Registration Bill must then be given, but this period might be coterminous with that provided in the Memorandum of Invitation, see Par. 3 (b); the Bill itself being settled during the same time. The Registration Act itself would allow a further period of grace after the King had signified his assent thereto: see Par. 4 (f).
- (b) "Scheme B" involves the drafting of a constitution for the new "Federation," and its consideration and approval by all the existing Architectural Societies. This would certainly occupy several months, perhaps a year. The Federated Council must also standardise the constitutions of the said Societies and fix a flat rate for their subscriptions and entrance fees. The notice of Registration and Invitation Memorandum would cover the same period of time as for "Scheme A."

Par. 8.—The Sub-Committee desire to draw the attention of the Unification Committee to the fact that the new Dental Bill will form a valuable precedent when preparing the Registration Bill for Architects. It provides that for admission to the Register of "persons who are not at present qualified," they "must be twenty-three years of age and of good character, and must have been :—

- (a) For five years immediately preceding the commencement of the Act engaged as a principal means of livelihood in the practice of dentistry in the British Islands or have been admitted to the membership of the incorporated Dental Society not less than one year before the commencement of the Act; or
- (b) For five years immediately preceding the commencement of the Act engaged as a principal means of livelihood in the occupation of a dental mechanic, the equivalent of our assistant architect, in the British Islands. In this latter case the applicant for registration must within two years pass the prescribed examination, etc."

The Bill also provides that "Any person who within two years passes the prescribed examination in dentistry and who was earning his principal living as a dentist at the commencement of the Act will be treated as having engaged for five years in dentistry."

JOHN W. SIMPSON (*Chairman*),
CHARLES RUTHERN (*Vice-Chairman*),
ARTHUR KEEN (*Hon. Secretary*).

The CHAIRMAN in opening the proceedings said he thought he might safely say that by reason of its representative character this was the most important meeting that had ever been held in the history of the profession in this country. The work of the Sub-Committee was now before them. They had had men of great reputation working on that Sub-Committee; also men with a great reputation

yet to make. All had worked with an amity for a common purpose which had been admirable. He believed that if any other profession had attempted to do what they had done, and what, he hoped, they would complete that day, they would have risked the most hopeless confusion. They might justly feel proud of belonging to a profession which had the wide views and the foresight which had been shown on this great question. Nevertheless, though the profession might be said, in a sense, to be unified, they had now to put their unselfishness to the proof and determine how unification should be crystallised and consolidated as a definite proposition. To effect this, every one of them must be prepared for a certain amount of sacrifice. Some might hold views which they wished to take credit for set aside, others might have hopes which would not be immediately realised. They met that day to consider the Report of the Sub-Committee on the two points referred to them. They were also met to take a great decision on behalf of the whole profession, and a heavy responsibility lay on each one of them. If there should be difficulties they must overcome them. It would be grievously disappointing if the meeting did not succeed in coming to some definite and satisfactory conclusion. But if they succeeded—and he predicted they would succeed—they would have established a professional organisation such as did not exist in any other profession, either here or in any other country. They were striving for a great ideal, and it was worthy their best and most unselfish devotion. The Sub-Committee's report was, in effect, two separate reports. It would, therefore, be in order for any member to move the adoption of one or other section. It was not likely that anyone was prepared to pledge himself to every detail of the scheme he favoured. There must be certain points of detail on which members would desire to make suggestions and amendments. In the first place he would ask them to decide on the principle of these two schemes; as to which of them they would adopt, not as a cut-and-dried proposition, but as regards the great general principle which was contained in each. "Scheme A" was known as the "Absorption Scheme"; "Scheme B" was called "Federation." They had to decide which of those two bases they should adopt for bringing up a scheme for unification. When the basis of the scheme was settled, they would then consider and build up the machinery for carrying it out. With regard to details he could not refrain from paying a compliment to the work of the Sub-Committee. Bearing in mind that this was so vexed a question and there were so many possibilities of alteration, he thought that after circulating this document for some considerable time and inviting criticism, to have only four or five amendments suggested was a great tribute to the way in which the Sub-Committee had done their work. The proposals were known as "Scheme A" and "Scheme B." The principle of "Scheme A" was Absorption—*i.e.*, the bringing of all the architects of the United Kingdom into the membership of the Royal Institute. The principle of "Scheme B" was Federation, that is, the bringing of all the architects of the United Kingdom into membership with one or other of the existing societies and for the control of those societies by a federated council. He would ask them first to give their decision as to whether the principle of "Scheme A" or the principle of "Scheme B" should be adopted by that meeting. If "Scheme A" were carried in principle they need not discuss "Scheme B"; if, on the other hand, "Scheme B" were carried then "Scheme A" would not be discussed.

Mr. SADGROVE asked whether it was the intention of "Scheme A" to throw open all the classes of the Royal Institute for the absorption of members of other bodies. Would the Fellowship class be open; would the Associate class be open to those who had not passed the examination but who in the judgment of certain people were qualified to be received into the Associate class? And would the Licentiate class be reopened? The Society of Architects had three classes, the Fellowship, the Membership and the Licentiate class. Were Members of the Society to be considered equal to the R.I.B.A. Associate class?

The CHAIRMAN: That would be a question for the meeting to decide. It is a matter of machinery. The principle must be to take all architects into the Institute. Paragraph 4 (*d*) says that "all architects qualified for membership shall be entitled to be admitted forthwith to the class appropriate to their qualifications."

Mr. SADGROVE: Then it is the intention of "Scheme A" to throw all the classes open?

Sir CHARLES RUTHEN: I occupy an exceedingly difficult position. I am Vice-Chairman of this Sub-Committee and President of the Society. If the procedure suggested by the Chairman is adopted, no harm can result. First of all, the Society of Architects cannot be gobbled up without the permission of the Society. The Chairman and myself discussed a number of points which are very important but first of all it must be decided what this meeting proposes.

The CHAIRMAN: We cannot discuss the acceptance of "Scheme A" or of "Scheme B" as a whole, but we can adopt the principle of either one or the other.

Major CORLETTE: With regard to the question of detail, it is surely for this Committee, after we have accepted the principle, to decide whether such and such things should be allowed under "Scheme A" or not. I move that the principle of "Scheme A" be adopted as a basis, subject to such amendment in detail as may be necessary.

Mr. GIBSON seconded Major Corlette's proposition. The Sub-Committee had done their best to formulate some broad general lines upon which either of the schemes would be workable. Whether they decided to adopt one scheme or the other they would not confine themselves to a rigid adherence even to the broad lines set out in the report. The fact that the Committee had set out the broad lines in regard to the schemes answered quite satisfactorily Mr. Sadgrove's enquiries as to the classes of the Institute. If they adopted "Scheme A" unanimously and the Institute said "Under no conditions will we admit the Society of Architects to the various classes of the Institute," the whole thing would go by the board. That was quite obvious. It was no good talking about giving a guarantee that those classes would be opened. They must first concentrate on the underlying principles of the two schemes. The one scheme was that all architects who practised architecture or earned their living by it should become members of the Royal Institute, which was to be the controlling body. He wished to confine his remarks to the advisability of having one body to be the controlling body—which would legislate and carry on the whole of the business of the education of architects—as against a federation. A federation simply meant that they would preserve in existence for all time bodies not necessarily antagonistic, but which had a different method of electing their members, a different qualification of membership, different conditions. If they attempted to make a federation out of all the existing bodies and set it up, say, in London or Liverpool or Manchester, as a body to control the whole profession throughout the country, they would be setting up an unwieldy organisation, one which would never work but which would be the cause of nothing but friction in the future. He was convinced that the only way they would do any good nationally was to get the whole of the profession under one control.

Mr. PERKS said that to secure unity in the profession it was not necessary to bring into the Institute the members of all the other architectural societies. Unity could be attained if the societies which were not at present allied became so. He suggested that fuller details should be given before the Committee were asked to vote upon the schemes.

Mr. MAURICE WEBB said that, as a representative of the Architectural Association, he had been sent there to support the equivalent of Mr. Corlette's motion. He was asked to condemn "Scheme B" and to support the principle of "Scheme A," on the clear understanding that before anything definite was arranged the position of the Architectural Association as an Allied Society or otherwise of the Institute should be definitely settled.

Mr. J. E. YERBURY, as representing the Licentiates, said that the matter had been discussed at several meetings of

the Licentiates, and they had come to the unanimous conclusion that "Scheme A" was the only scheme which contained the ideal they were looking for. But, although they were so much in favour of "Scheme A," rather than leave that meeting without coming to a conclusion they would subordinate their own views and vote with the supporters of Scheme "B." There were differences between the two schemes, but they were chiefly differences of detail; therefore they would vote with the majority. They, however, unanimously preferred "Scheme A," and they hoped the Main Committee would vote for it.

Mr. BUCKLAND said that the Birmingham Architectural Association, which he represented, were unanimously in favour of "Scheme A," and he had heard from many of the Presidents of the Allied Societies to the same effect.

Mr. WELCH said they had arrived at a stage at which they could, with perfect justice to both schemes, go to the vote as to whether "Scheme A" or "Scheme B" was preferable. He could quite understand that certain members might feel that they would be voting away the interests of the Society they had at heart if they voted for either "A" or "B"; but they should remember that they had to deal with a big body of men brought together, not only for unification, but lending itself to the promotion of unification in a quite unprecedented manner. He asked them to leave themselves in the hands of this body as a judicial body which could be relied upon to see fair-play between them all in the working out of details.

Mr. ARTHUR KEEN stated that the Council of the Institute were in favour of "Scheme A" rather than "Scheme B," irrespective of the details set out in the report.

Mr. MCARTHUR BUTLER said that the Society of Architects had not expressed any opinion on either scheme, officially. He himself, he thought, was the originator of the Federation scheme: he had drafted a scheme which had been placed before the Sub-Committee. But, as he stated in his draft, he did not bind himself to that: he had an open mind until he had heard the views of the Sub-Committee. He had gathered in conversation with some of the leading men of the Institute that the attitude of the Institute towards unification generally, particularly towards registration, showed a much wider outlook on the whole matter than used to be the case, and he had come to the conclusion that Federation, which he only put forward because it was thought to be the next best thing, was not so good. He thought the time had come for much closer union between the two bodies, because the question of registration narrowed itself down to some agreement between the Institute and the Society. Personally, he was strongly in favour of some form of amalgamation. Let them not call it "Absorption," but "Scheme A," which was the bringing of all architects in the Kingdom into the R.I.B.A. That meant what it said, he hoped, and that they were all going by some means yet to be devised to be members of the Institute. It had been suggested that even if they had all the architects of the Kingdom in the Institute they could not succeed in getting Registration. But even if they did not succeed in getting statutory registration within a certain time they would in the meanwhile have become such a strong body that to belong to it would be another form of registration which would serve them equally well. That was the whole point: get the profession into one powerful body, then they could organise themselves and lay down their own regulations. Then the architects who were left outside—he did not think there would be many of them—would all come into the Institute. He hoped the Meeting would come to a decision on principle.

Mr. OLDRIEVE said he had received a very clear mandate from the Scottish Institute and the Edinburgh Architectural Association—and he was very sorry, personally, that it should be so—that they did not approve of either "Scheme A" or "Scheme B." Their feeling was that professional practice and methods varied so much in different parts of the country that it was better to have the Allied Societies and separate Institutes working on their own lines under separate charters, and that for specific purposes, such as registra-

tion, there should be an agreement, and a working committee to carry out those specific purposes. That was the feeling in Scotland. They were far away from London, and many things happened which were better settled locally. There were four to five hundred architects who were members of the Scottish Institute. A very large number of them were members of the Royal Institute, and would like to do all they could to support the Institute. They would remain members of the Institute whatever was done. But if the Committee wished to carry the Scottish Institute with them they would have to modify the constitution of either "Scheme A" or "Scheme B"; and he had been asked to propose that the whole matter be referred back to the Sub-Committee with the object of bringing forward a modified scheme, so as to carry out the idea of registration without entirely swallowing other societies, either under "Scheme A" or "Scheme B."

The CHAIRMAN. Whatever scheme we agree upon has got to be hammered into shape. The Sub-Committee have done their best, but they are not infallible; and now that we have a meeting of the Main Committee, we shall be glad to receive suggestions. The only question before us at the moment is the principle of bringing all the architects in the United Kingdom into the Institute.

Major CORLETTE said that his object in intervening was to make a suggestion in the form of a resolution, so that they could discuss the principle at once and not lose time by going into endless detail. But he was particularly pleased when he heard the definition from the Chair of the principle embodied in "Scheme A," and he should be pleased to take the definition of the Chair and put it as his resolution. The principle, as defined from the Chair, he took to be unity, nothing else; but such a kind of unity as would make it possible for every other Institute or Society in the United Kingdom to retain its constitution, with such modifications as it could accept in consultation with the Main Committee. He understood that the Committee had no desire to interfere in local matters in which provincial societies were especially interested. He took it that unity meant unity of all the local societies, and, above all, that it should be unity of spirit. The Committee, however, had to consider details, after the question of principle had been decided; and if any details in the scheme before them could not be reconciled with the principle adopted those details would have to be hammered out so that they would agree with the principle.

Sir CHARLES RUTHER said that Mr. Oldrieve failed to realise that there was an undercurrent running through the discussion which it was difficult to define. He took it that the idea of unification was that all architects should belong to the Royal Institute, but that in working out the details of the whole scheme, after the principle had been decided, there would be no objection to the South Wales Institute, for instance, remaining; it was to-day affiliated with the Royal Institute, and the only difference was that they would all be members of the Royal Institute, which they were not to-day. This would apply also to the Edinburgh Association and to the Scottish Institute: they would have certain local work to do, but there would be certain defined regulations affecting not Edinburgh or South Wales specially, but the whole architectural profession. If they could only deal with the question of principle, and afterwards decide how architects who were not members of the Royal Institute would become so, that would settle the whole thing. Might he suggest that there was only one society that had to be considered—viz., the Society of Architects. He was there as Vice-Chairman of the Committee, but he was also there to uphold the honour of the Society of Architects of which he was President. That society, he believed, would be willing to fall in with a reasonable and proper scheme of unification if the Society were satisfied that the principles for which it had stood would be carried into effect. The Allied Societies would not be affected by unification, except in so far that those of their members who were not now members of the Institute would become so.

Mr. IVOR JONES said that the South Wales Institute approved of "Scheme A" in principle. The Society of Architects was largely represented in their Institute, and the relation of the two bodies in South Wales was of the closest possible description; although they did not see eye to eye always, in principle they were one body. Therefore unification, from the point of view of South Wales, had been a success.

Mr. G. C. LAWRENCE: I understand Mr. Corlette's motion to mean that this meeting is to say that it is much to be desired that all architects should be members of one body, and that that body should be the Royal Institute. I support that on behalf of the Bristol Society.

Mr. TONAR: As representing Somerset and Dorset, I can say that they approve of "Scheme A" in principle.

Sir BANISTER FLETCHER said that the Scottish architects were bringing forward a scheme for their "Incorporation," and the Institute Council, with great generosity, he thought, had said that they would not oppose it, but would do what they could to help it. It was certain that if the Royal Institute were to take up a hostile attitude with regard to the incorporation of the Scottish architects, they would not be incorporated. He therefore could not believe that the representative of the Scottish Societies would oppose either of the schemes for unification now before the meeting.

Mr. SADGROVE: On behalf of the members of the Society of Architects who are here this afternoon, I say that we entirely support the views expressed by Sir Charles Ruthen, our President, and, subject to the details, as mentioned by him, we shall vote for "Scheme A."

The CHAIRMAN then put the motion to the meeting and it was RESOLVED unanimously, "That the principle of 'Scheme A'—namely, the bringing of all the Architects of the United Kingdom into membership of the R.I.B.A.—be adopted as the basis for unification."

The CHAIRMAN: The carrying of that resolution eliminates "Scheme B" altogether from your purview. Now comes the question of the machinery of "Scheme A." Many amendments as to details have been sent in. There is one from Mr. Buckland which, if adopted, will materially simplify the whole problem with regard to "Scheme A."

Mr. BUCKLAND said that when the two schemes were submitted to the Council of the Birmingham Association, although they passed a resolution in favour of "Scheme A," it was suggested that the machinery might be simplified if the Institute, instead of forming a Board of Incorporation, could get to work at once, and make such alterations in its Charter and By-laws as would enable it to admit to membership all practising architects, and to confer with the Society of Architects as to the conditions of membership. The latter part of the suggestion was made because the Society of Architects was the one body which was not allied to the Institute. The Architectural Association had been from time immemorial so closely identified with the Institute that they were regarded as part of it. The resolution he had to move was as follows: "That the Royal Institute make forthwith such alterations to its present Charter and By-laws as will enable it to admit to membership all practising architects, and confer with the Council of the Society of Architects as to the conditions of membership."

Sir CHARLES RUTHEN: I second the motion.

Mr. PERKS opposed the motion, contending that it would be taking the matter out of the hands of the Sub-Committee. The whole matter should be referred to the Sub-Committee, and they should be asked to draw up a scheme for the consideration of the Main Committee.

Sir CHARLES RUTHEN said that the Sub-Committee could not do anything unless it had the help of the Council of the Institute acting in consultation with the Society of Architects. Then the Committee could fall in, and get the details of "Scheme A" into proper form. The Birmingham Association had started a rock on which the scheme of unification might split. If the Council of the Institute and the Council of the Society would agree on this vital principle, the Committee could get to work.

Mr. DAVIDGE: The Council could co-opt representatives to the Sub-Committee.

Mr. WELCH said he disagreed with Sir Charles Ruthen. This was essentially continuation work of the Sub-Committee which started it: primarily they had the whole thing in their minds: secondly, they were a comparatively small body, who could continue the work along the lines on which they had been proceeding, with the advantage of having before them the various resolutions passed by the Allied Societies, and knowledge of what had transpired at the present meeting. The Sub-Committee numbered among their members the leading lights of the Councils of both the Institute and the Society of Architects; they would therefore not be ignorant of the views of both bodies when discussing details. They would be able to place doubtful points before their Councils, and get their views, and bring them back to the Sub-Committee—an admirable interlocking of method which would produce a satisfactory result. Otherwise they would be having constant references back which might go on for a couple of years.

The CHAIRMAN: The two propositions are not necessarily antagonistic. If we are to hammer out all the details of "Scheme A," it must go back to the Sub-Committee, or to a further sub-committee, to work out. Mr. Buckland has struck on a very great principle, and he is going to cut out all the difficulties which appeared, and which Sir Charles Ruthen said might be a rock which would prevent us getting further. Until the Councils of the Institute and the Society can be got to agree on some such lines as indicated, we cannot go far. Therefore I suggest that this committee, in referring "Scheme A" back to the Sub-Committee, should make note of its recommendation, and that, in the words of Mr. Buckland's amendment, they recommend that the Royal Institute may forthwith make such alterations to its present Charter and Bye-laws as will enable it to admit to membership all practising architects, and confer with the Council of the Society of Architects as to the conditions of membership. If this Main Committee will give that as an instruction to the Sub-Committee, it will clear away many difficulties, and enable them to get to work. ("Agreed.")

A MEMBER: Will Mr. Buckland agree to the deletion of the word "practising" before "architects," as it is intended to apply to students as well.

Mr. BUCKLAND assented.

Mr. PERKS said that the course suggested would be a great mistake, as it would be referring to two bodies the duty to do the same thing, and there was bound to be overlapping. It would be much better to refer the whole matter to the Sub-Committee.

The CHAIRMAN: It would be useless for the Sub-Committee to go on preparing schemes unless they were assured that the Councils of the Institute and the Society would accept their recommendations.

The CHAIRMAN, replying to Mr. Marshall: The Sub-Committee must have some definitive instructions as to what will be approved. If the committee adopts the principle of Mr. Buckland's amendment, that the proper way to carry out this scheme is for the two Councils to come to a definite arrangement, that clears away the difficulty of the Sub-Committee to a large extent. I see no difference between that instruction and instruction given to the Sub-Committee, and they are then given a line as to the best method of achieving the desired objects. We are not tying the hands of the Sub-Committee.

Major CORLETTE asked if the resolution might not be put in the following form: That the Royal Institute be requested to make forthwith such alterations in its Charter and Bye-laws, in co-operation with the sub-committee, as will enable it to admit all architects to membership.

The CHAIRMAN: There is only one way in which the Charter and Bye-laws of the Institute can be altered, and that is, first, by a resolution of the Council, and, secondly, by a resolution of the general body.

Mr. CUBITT said they seemed to be going now on a

different procedure. They had had the procedure of the Unification Committee and the Sub-Committee to hammer out certain details with the idea of getting a scheme of unification. Now Mr. Buckland's resolution suggested that out of the various bodies represented on the Unification Committee, two of them should be told to put their heads together and devise a scheme which would suit their own particular members. It seemed to him that, in deciding on regulations regarding admission to the Institute, the Institute ought to have the views of the Allied Societies and the Architectural Association, and also those of outside architects. Was it not better to adopt the ordinary procedure, that this committee, on which all bodies were represented, should carry on and suggest a scheme, and put it before the various societies with a recommendation for its adoption?

SIR CHARLES RUTHEN said that Mr. Buckland and the Birmingham Association had dropped on the one vital point. There was no harm in letting it go through, but there would be a great deal of harm in not letting it go through. He urged the committee very strongly to pass it as unanimously as it had passed the other. After all, the Allied Societies had not the particular interest that the Society of Architects had in the proposal which was contained within the four corners of the resolution. The Allied Societies were already allied, and in that came the whole question of the Sub-Committee. He had worked very hard to bring about unification, and the Society were absolutely behind the President of their own body. There could be no harm in this proposition, and he strongly advised its acceptance.

MR. MATRICE WEBB said that the Architectural Association would be perfectly happy to abide by any alteration that the Institute made in its Bye-laws, but as other bodies were concerned he thought the resolution might be altered to read: "The Royal Institute be asked to make forthwith such alterations in its present Charter and Bye-laws as will enable it to comply with the principles adopted this afternoon, and consult, as necessary, with the Society of Architects and other bodies as to the conditions of membership."

MR. DAVIDGE: Do not say "forthwith."

MR. WEBB: I do not mind omitting "forthwith."

MR. WELCH said that they had no authority as a committee to give an instruction to the Royal Institute or to the Society of Architects as such, and those bodies had no authority to give instructions to each other. Instead of being in the form of an instruction they should say "it is desirable that such a thing be done." A recommendation of that sort would be in order.

SIR CHARLES RUTHEN said it was *imperative* that they should decide. He was speaking not as a representative of an Allied Society but as the head of a thousand or twelve hundred architects who were not members of the Royal Institute. He represented a body which was self-contained and self-governing, and it was imperative that the Councils of the Royal Institute and the Society should take this matter up. The Society of Architects could not be ordered to commit suicide, and they would not consent to be so ordered. He, a Fellow of the Institute who was also President of the Society of Architects, was taking this course because he had at heart the unification of the profession.

MR. LAWRENCE suggested that the resolution read: "That the Committee recommend, antecedent to the further consideration by the Sub-Committee, that the Royal Institute make such alterations to its present Charter, etc., as may be necessary." The Sub-Committee must have before it for consideration an agreement between the Society of Architects and the Royal Institute.

SIR CHARLES RUTHEN: I press that the resolution as proposed and seconded be put.

THE CHAIRMAN, in answer to Sir Banister Fletcher: The Sub-Committee is in existence until the Main Committee decides that its functions are finished.

MR. BUCKLAND: I have amended my resolution in accordance with Mr. Webb's suggestions, namely, "That the

committee recommend the R.I.B.A. to make such alterations in its present Charter and Bye-laws as will enable them to comply with the principle of 'Scheme A,' as adopted unanimously this afternoon, and confer with the Council of the Society of Architects as to the conditions of membership." I am willing to accept the suggestion to add other societies not allied.

SIR CHARLES RUTHEN: I second that.

MR. WATERHOUSE suggested the word "draft" instead of "make," and this was agreed to.

MR. PERKS: I propose as an amendment: "That this scheme approved to-day be referred to the Sub-Committee for them to bring up suggested details, they having power to consult any Council or body or individuals whom they think fit." He asked the meeting to vote against the resolution with the view to moving this amendment as the substantive resolution. What Mr. Buckland suggested would bring about something like chaos. It would be sent to the Council, who would have to appoint a committee, which would confer with another body; then there would be the Sub-Committee dealing with matters which had been passed to-day; thus they would be referring to two separate bodies to work out the details. It would take a long time, and be very unsatisfactory. It would be better to refer it to the Sub-Committee, giving them power to consult whom they liked, and then to bring their proposals to the Committee. Until the details were approved they could not go on. They wanted to know the details of the scheme, which should include registration. He had been much in favour of "Scheme A," but if certain details were proposed he might be against them.

MR. GAMMELL said that if this scheme was to go through they must have the goodwill of the Society of Architects. He thought their thanks were due to the Presidents of the Institute and the Society of Architects, for the Committee's having done one of the greatest things that had been accomplished since he had been in the architectural profession. They had arrived at a unanimous conclusion in regard to certain procedure, and the Chairman and Sir Charles Ruthen were obviously satisfied that it would be wise to adopt Mr. Buckland's resolution, and he thought the meeting could not do better than follow the lead of the eminent gentlemen who had done so much for their cause.

THE CHAIRMAN: I want to point out to you, gentlemen, that there is nothing inconsistent between Mr. Buckland's resolution and Mr. Perks's amendment. We have Mr. Buckland's resolution before us, and there is no harm in passing that. Then Mr. Perks can very well put his proposition to refer the whole thing back to the Sub-Committee. I repeat, there is nothing inconsistent between the two. We will now take a vote on Mr. Buckland's motion.

MR. BUCKLAND's resolution was thereupon put to the meeting, and it was RESOLVED, by 28 votes to 4, "That the Committee recommend the Royal Institute to draft such alterations to its Charter and By-laws as may be necessary to comply with the principle of 'Scheme A,' adopted this day by the Unification and Registration Committee, and to confer with the Council of the Society of Architects as to conditions of membership."

SIR BANISTER FLETCHER proposed that the Sub-Committee be instructed to consider details and report to the Main Committee.

MR. GIBSON seconded.

MR. BROWN: Is it the intention of the Sub-Committee to consider all the suggested amendments?

SIR CHARLES RUTHEN: Yes, to consider everything that has been sent in.

THE CHAIRMAN: I now put Sir Banister Fletcher's motion, "That the matter be referred to the Sub-Committee to consider details and report to the Main Committee."

This was agreed to unanimously.

MR. IVOR JONES asked leave to move a resolution which had been passed by his Council, that it was imperative that

Scotland, Wales and the Provinces should be adequately represented on any sub-committee dealing with this matter. At present there was only one representative of Allied Societies, and this was not considered adequate representation. The movement was of the greatest interest to members of the Allied Societies, and they wanted first-hand information as to what was going on.

Mr. PERKS moved that five members of Allied Societies be added to the Sub-committee.

Mr. WELCH seconded.

Mr. IVOR JONES proposed that there be six additional members from Allied Societies.

Mr. PERKS said he thought six reasonable, and seconded the proposal.

Mr. LAWRENCE said that if the Society of Architects had a certain balance, and the introduction of more representatives of Allied Societies would upset that balance, he should not press it. The point was to get the scheme more widely known in the provinces.

Mr. CUBITT said that the Society of Architects might be asked to nominate two provincial members.

After some further discussion the motion was put to the meeting, and it was RESOLVED "That six additional representatives of the Allied Societies be selected by the Chairman and Vice-Chairman from the members of the Main Committee to serve upon the Sub-Committee."

The Associates and Unification.

The President has sent an invitation to all the Associates of the Institute to meet him and the Hon. Secretary on Tuesday, 7th June, at 4.30, in order to discuss the steps taken towards the unification of the profession. The proceedings will be quite informal. The President trusts that the engagements of Associates will permit them to attend, and that they will express their views on the subject quite frankly.

Unification.

115, Gower Street, W.C.1, 23rd May 1921.

To the Secretary R.I.B.A.—

SIR,—Having read the report of the Sub-Committee, may I be permitted to congratulate them on the schemes put forward, and at the same time offer a further suggestion—a suggestion that I feel will go a long way towards making or marring the success of the business in question.

On reading the report one notices that the control of the scheme passes into the hands of a "Board of Control" or "Federated Council," apparently the latter. Either form of control is to include all the members of the present Committee, together with such other members as *they* may elect. In such an important matter as Unification, it seems to me that any body having the powers that the Federated Council appear to possess should be a popularly elected body. All interested parties should have a say in the election of such a body, and the body should not merely consist of members nominated by the Council, or any other individual committee.

In my opinion, to adopt such a course as is proposed is not calculated to secure co-operation of the whole profession, as individual architects would feel that they have little, if any, say in the questions that are likely to crop up.

Incidentally, one of the things I am trying to eliminate from the Institute is any suspicion of "clique-

ism," and certainly there is a tendency in this direction at present.

G. SCOTT COCKRILL [A.]

Provincial Members and Committee Meetings.

10th May 1921

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR.—Upon the assumption that in the interest of our Institute business it is desirable to obtain the attendance of provincial members to the fullest possible extent, and in relation to the considerable expense attached to such attendances by members who live at a distance from London, I write to put forward the following proposition:—

That in fixing the meetings of the various committees (special and regular) these should be so arranged as to make it as easy as possible for full attendances to be put in.

To explain exactly what is intended, I would quote the case of the Practice Standing Committee.

At the present moment there exist two sub-committees, which meet on days other than the regular one for the full Practice Committee. In addition to this, special committees are called for different purposes, for example, the Architects' Defence Union, also on different days.

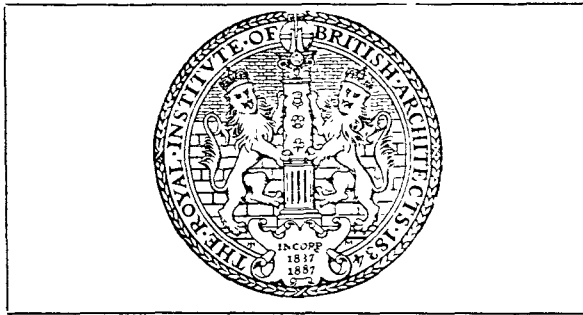
Now, sir, as it means that every provincial member attending any meeting has practically to give up the whole day for the purpose, it really does not matter to him whether he attends a meeting at 2.30, 3.30, or 4.30 (this latter time being the usual one for the Standing Committees to meet), and it suggests itself to the writer as not being beyond the scope of practical suggestion to combine a meeting of a Standing Committee with either a sub-committee or a special committee.

I believe it has for a long time been realised that one of the regrettable weaknesses in our organisation lies in that it is a difficult matter for provincial members to take their share in the business of the Institute, and, therefore, to the logical mind it suggests itself, further, that every disability to the fullest participation of such members should be removed where possible. Of course, one realises that the London member may regard it as a somewhat serious request to be invited to start the sitting of a committee, say, at 2.30 p.m., with the prospect of this being followed up by another committee later in the afternoon, but surely if the provincial member can make what is a far greater sacrifice, it is not too much to ask of the London member.

In conclusion, I have chosen to raise this question in this particular manner rather than by other means, as it suggests itself to me that expressions of opinion may be vouchsafed through the medium of our JOURNAL, and this, if it occurs, should be helpful in arriving at some conclusion of a constructive nature. —Yours, etc.,

K. GAMMELL,

Hon. Co-Secretary Practice Standing Committee
Hon. Secretary Housing Sub-Committee



9 CONDUIT STREET, REGENT STREET, W., 28th May 1921.

CHRONICLE.

"Architectural Heresies of a Painter."

The public lectures organised by the Literature Standing Committee with the object of arousing wider public interest in architecture continue to attract large audiences, a good proportion, probably the majority, belonging to the non-professional class. Mr. Roger E. Fry's lecture, delivered on the 19th inst., and entitled "Architectural Heresies of a Painter," had especial interest for architects, and seemed to have been prepared expressly for them. Mr. Charles J. Holmes, Director of the National Gallery, presided. Mr. Fry set down his heresies in the following terms:—

Heresy No. 1. We have substituted for the art of architecture the art of dressing buildings according to the fashion.

No. 2. This phenomenon is more or less world-wide. In the false architecture of modern Europe which results, the English is distinguished by its lack of the sense of scale.

No. 3. It is sometimes distinguished also by its good taste. Good taste in this sense is a social rather than an æsthetic virtue.

No. 4. There are two possible kinds of beauty in a building—(1) What I call Natural Beauty, which is also the beauty of a locomotive or a panther, and this results from the clear expression of function; (2) Æsthetic Beauty, which results from the clear expression of an idea. We have so arranged that neither of these beauties occur in our buildings.

No. 5. Æsthetic Beauty in a building is essentially the same as that of sculpture. It results from the expression of a plastic idea. There has hardly ever been an æsthetic architecture in England; there has been even less sculpture.

No. 6. Our architecture does not express plastic ideas, but historico-social ideas.

No. 7. It is founded upon social snobbery.

No. 8. The vices of modern English architecture have almost always been inherent in the architecture of England. Modern conditions have brought out the rash.

No. 9. Modern conditions and modern science have put into the hands of architects the greatest opportunity in the history of the world. They have missed it completely.

No. 10. To a great extent this is not their fault.

The lecturer said he honestly didn't see that he could make the list shorter, but by amplifying his theses he hoped to mitigate and soften their horrid abruptness. Touching his first heresy, as dress to be pleasing must be exactly the last word of fashion, so it was with modern architecture: buildings which when just finished attracted by a certain air of pimpant novelty became *démodé* in a few years. He

could remember when St. John's Wood Avenue seemed to be an epoch-making discovery—baronial splendour compressed into the limits of suburban convenience, when the Wagner-operatic effects of Hans Place looked almost authentic and hardly suggested carton pierre. In his boyhood, bitten by Ruskin's style-mongering, he almost worked up an enthusiasm for the then new Law Courts. Then came the *coquetterie* of so-called Queen Anne—but all had become outmoded, tarnished, a painful reminder. Russell Square used to be a sober, dignified and not unpleasant specimen of London Georgian building. Then some years ago, as the leases fell in, terra-cotta trimmings were glued on to the house-fronts—forms which were not only architecturally non-sensical but had that faulty and unscholarly antiquarianism which was the special mark of "bad taste." The lecturer defined Real Style as the perfect adaptation of the means of expression to the idea. It resulted from ease of expression. As understood in modern architecture, Style was essentially symbolism. The view he had heard expressed that we should have a wonderful art if our manufacturers could be taught to imitate the right models was fatal to creative effort. It implied an idea that beauty was something material, absolute, fixed and determined, whereas it was a relative quality which inhered in the forms of the object of art only in so far as it was an evident sign of an inward spiritual state on the part of the artist. As regards the use of the forms of past architectural styles, the lecturer said that a copy of an original work of art by an artist might have great æsthetic value provided the artist remained an artist and did not become a copyist. It was possible for an artist so to assimilate the principles of a past style as to be able to create something entirely new whilst using similar forms. But he must have got at the underlying principles, and not merely learnt by heart the external evidences of those principles. He must be able to move freely and of his own impulse among those forms. He must think in the language, not merely translate. In the incredible museum of pastiches which made up most of modern London one came across fairly scholarly translations showing a general notion of the grammar and syntax as studied from outside. But God help us when we came to the more "original" adaptations—what a jargon, what a chattering of Babu and Pidgin-English, what a scattering and smattering of incoherent and incompatible words, what a patchwork of odd phrases picked up here and there and stuck together anyhow as the hazard of momentary convenience suggested. The French had not perhaps played such wild chromatic scales up and down the archaeological keyboard as we and the Germans had done. On the other hand, the French had developed the cruel efficiency, the hard brittle *chic* of the *École des Beaux-Arts*, an instrument perfectly adapted to replace inspiration and sensibility by brilliantly self-confident mediocrity. Seeking amid the grotesque welter of modern European architecture for the peculiar characteristics of our own brand he found it in (1) the absence of scale and (2) the presence of a certain kind of good taste. Portland Place was the only roadway in London that gave one room to spread the wings of one's civic consciousness. It wasn't mere size: it was proportion that counted, as witness St. Paul's where the actually small space spread itself for the subtly deceived eye so sumptuously that one could hardly believe one had stepped so quickly from end to end. But Wren was the one miraculous exception to all his generalisations about British architecture—he indeed was one of the greatest masters both of scale and of plastic expression that had ever lived. The other distinction of our national architect-

ture was its occasional good taste—hardly ever displayed, of course, in official or public building, but only in smart private building. But he regarded it as a social rather than an æsthetic quality. It was a negative good taste, consisting in not making mistakes of grammar, not being dowdy, slack and unscholarly. Dealing with his Heresy No. 5, the lecturer said that æsthetic beauty in a building was essentially the same as that of sculpture, and resulted from the expression of a plastic idea. This expression of a plastic idea was very rare in our architecture and almost unknown in our sculpture. By "plastic idea" he meant such a construction of three-dimensional shapes as satisfied the contemplation of their relations to one another and to the whole combination. All building, as all sculpture, was three-dimensional, had mass and volume, but it might not have three-dimensional form—that is to say, the relations of its parts together might be merely casual, the result of accident or outward necessity, and not self-explanatory and apparently necessitated to the imagination. We had to recognise that certain relations of solid shapes to each other did set up in the mind which contemplated them a peculiar condition of tension and equilibrium which was the essence of the æsthetic emotion. And an object which had those relations that were satisfactory to æsthetic contemplation might be said to have plastic form. The lecturer instanced certain plastic forms and said that sensibility to such forms varied immensely with individuals, and still more perhaps the assiduity and persistence of their contemplation of such plastic ideas. He could only claim that such plastic expressions gave him intense and vivid pleasure. But in modern architecture he hardly ever got that sensation; he hardly ever could apprehend the three-dimensional development of the ground plan or its relation to the earth surface, or at least his apprehension was not of that vivid nature which accompanied æsthetic apprehension of purposeful design. He did not think that most modern architects, preoccupied as they were with architectural costume and the ingenious application of styles of various kinds, ever made much of the possible play of the elementary plastic forms. He did not think they felt plastically, their minds did not move freely in three dimensions; they thought and felt in the flat. If they did feel plastically, they would discover all sorts of untried possibilities in the combinations of these forms and in the adaptations of them to particular ground plans and to peculiar situations. Discussing his Heresy No. 9, the lecturer said he could not help wondering why so violent a stimulus as that given by new constructional possibilities in architecture had led to so disappointing a result. Such possibilities were accepted slowly, and with a kind of grudging reluctance. Instead of inspiring the invention of new and appropriate plastic forms the new methods seemed to be slurred over and buried beneath the old stylish conventions. Here and there was to be seen a timid attempt to accept the situation, but there was no concerted general effort. He missed the enterprise, the experimental courage, the *elan* which one thinks the immense possibilities of modern building methods might have inspired. In closing, the lecturer said that he might naturally enough be thought to have been carping and unjustly severe, to have picked out and underlined everywhere defects without sufficiently considering the causes which explained and excused them. But in truth he had no desire to scold or blame. He merely wanted clearly to face the situation in the belief that that was the first step to improvement. It was just the advantage of our highly self-conscious and critical age that we could by a deliberate effort change our character. We

could fix our minds on those defects which from long inherited custom had become not only traditional but instinctive, and by so fixing our minds we might ultimately connect them altogether.

Sir Reginald Blomfield on Mr. Fry's Lecture.

The Times of the 23rd published its Special Correspondent's report of an interview with Mr. Fry, in which the latter reiterated and elaborated some of the points in his lecture at the Institute on the 19th inst. On the following day appeared a report of the same correspondent's interview with Sir Reginald Blomfield:—

I asked Sir Reginald Blomfield if he had read Mr. Fry's views in *The Times* of yesterday. He answered that he had. "I have no particular quarrel," he said, "with Mr. Fry's remarks, but he overlooks one very important fact, and that is that the majority of modern buildings are not designed by architects at all, but by builders. What he announces as the latest panacea for modern architecture the best English architects have been practising for the last 25 years. It is more than a generation since we got tired of irrelevant ornament. For many years we have dispensed with it in our buildings, and it has long been a commonplace with architects that beauty is to be found in efficiency and the expression of purpose. When I say 'expression of purpose' I intend that a sufficiently liberal interpretation should be given to that purpose."

"What do you consider to be the weakness of modern architecture?"

"The real source of weakness is that it is regarded as a profession or a business, and not as an art. I am afraid I have no idea what Mr. Fry means by his distinction between 'natural beauty' and 'æsthetic beauty.' All beauty is æsthetic in the sense that we are conscious of its existence through our eyes. Mr. Fry seems to suggest that beauty can be superadded to forms which already express the purpose for which they exist. Surely that is getting near the Victorian fallacy that architecture is building *plus* ornament, and that it is the ornament that makes it architecture. Good architecture is inherent in the forms with which it deals, and has to be evolved out of them, but it does not follow that good architecture is to be obtained by merely eliminating ornament and leaving the construction in unabashed hideousness. Mr. Fry will find an example in the Exhibition Road.

"I agree with Mr. Fry's opinion of Westminster Cathedral. I consider the inside better than the outside."

The Times of the 25th published a correction from Sir Reginald Blomfield stating that he had offered no opinion to his interviewer with regard to the Kodak Building. His opinion was that the building fulfilled its purpose admirably.

Architect and Client.

The President, Mr. John W. Simpson, was also interviewed, the report appearing in *The Times* of the 21st. Referring to the wish expressed by Mr. Roger Fry in his lecture that architects should unite to impose more of their own will in the practical application of their art, Mr. Simpson said that if Mr. Fry meant that a body of architectural opinion should be formed to impose its will on clients and builders he was not sure that he agreed with him. In his view the first duty of an architect was to translate the needs of his client in the terms of art—that is to say, to give

artistic expression to the constructive needs of the client. If an architect was obliged to sacrifice his artistic conscience in order to give his client what he wanted, or, on the other hand, to abandon the conditions of the problem which his client laid before him, then he was a useless man and ought not to accept the commission. The question of an architect imposing his will was purely an administrative matter. The building owner entered into a contract, and it was the duty of the architect to administer that contract so as to see that it was fairly carried out from the point of view both of the builder and the client. In other words, the architect had to see that his client got 6*l.* worth of building for every 6*l.* he expended, but at the same time to ensure that he did not extort 6½*l.* worth out of the builder, or that the builder did not ride off after giving 5½*l.* worth. The function of an architect was a judicial one, and was becoming more and more recognised as such by the Courts.

Arterial Roads in Progress.

Mr. W. R. Davidge [A.], Hon. Secretary of the R.I.B.A. Town Planning Committee, draws attention to the weekly report of the Ministry of Transport (6th May 1921), from which it will be seen that the following arterial roads are in progress in Greater London :—

- Eltham Bypass, 4,940 yards, 212 unskilled men employed;
- Kidbrook extension, 759 yards, 11 unskilled men employed.
- South Circular Road, section through Woolwich Housing Estate commenced, 26 unskilled men employed.
- Shooters Hill Bypass, 3,600 yards, in Woolwich and Greenwich, 98 unskilled men employed.
- Bromley Bypass (not yet accepted by Kent Council).
- Western Avenue, 1,730 yards, approved by London County Council, section in Hammersmith, length through Acton Housing Estate commenced, 41 unskilled men employed.
- Eastern Avenue, short section crossing Hackney Marshes, from Wick Lane Bridge to River Lea, 600 yards, 35 unskilled men employed.
- East Ham and Barking Bypass : arrangements have now been made for the construction of this road, and it is hoped that work will shortly commence.
- New Cambridge Road (Tottenham and Edmonton), 11,050 yards, 414 unskilled men engaged. (Herts County Council have been unable to enter into an arrangement for that portion of the road in the Cheshunt district.)
- North Circular Road (sections of), 9,750 yards, work commenced in Willesden, Edmonton, Southgate and Walthamstow, 688 men engaged part time. Section in Hendon also arranged for.
- New Chertsey Road, section in Chiswick commenced, 23 unskilled men employed.
- Also various road widenings at Brentford, Bromley, Croydon, East Ham, Epsom, Feltham, Hackney, Mitcham, Penge, Walthamstow, and Kent County (Dartford area) ; Wimbledon scheme in course of preparation.

New arterial roads in the provinces, either in progress or under negotiation, are as follows :—

- Aberdeen, Barrow, Birmingham, Blackburn, Bournemouth, Bradford, Brighton, Bristol, Cambridge, Cardiff, Carlisle, Cheltenham, Coventry, Derby, Dundee, Folkestone, Glasgow, Great Yarmouth, Haslingden, Hastings, Ipswich, Lancaster, Leeds, Lincoln, Liverpool, Lowestoft, Manchester, Neath, Nelson, Newcastle-upon-Tyne, Norwich, Nottingham, Poole, Portsmouth, Preston, Rotherham, Scarborough, Scunthorpe, Sheffield, Southend, Stockton, Taunton, etc.

Post-War Church Building.

Sir Charles Nicholson, Bart. [F.], had a very appreciative audience for his lecture, "Post-War Churches," the fourth of the series of Public Lectures arranged by the Literature Standing Committee, and delivered at the Institute on the 26th inst. The Right Rev. Bishop W. R. Mounsey, formerly Bishop of Borneo, presided. Speaking of the present cost of building, the lecturer said that it was decidedly heart-breaking to those who had painfully collected sums of money for church building which under the new conditions were quite inadequate for the purpose. It would probably be conceded, he said, that it was not altogether seemly that a nation which could afford a 6*s.* income tax, a duty of £1 per horse-power upon motor cars, a salary of £5,000 a year to a Minister without portfolio, and free railway passes to Members of Parliament, should go churchless on account of its poverty. Bishop Mounsey, in closing the brief discussion which followed the lecture, expressed to Sir Charles the thanks of the audience for what he described not only as an extraordinarily useful lecture, but one which had other qualities which go to the making of a good lecture. The little touches of humour, said the Bishop, with which the lecture was interspersed helped to make the subject, to a mere layman like himself, more interesting than it would otherwise have been. The Bishop regretted there were so few clergy present, because when they were concerned with building churches they betrayed in many instances a very lamentable ignorance as to the real and practical difficulties that confront the architect in carrying out their requirements. The absolutely invincible ignorance of the ordinary churchwarden was even more striking ; it almost made one despair of human nature. Sir Charles's lecture will be published later.

Building Contracts.

On the 9th May a conference was held at the Institute between representatives of the R.I.B.A., the Society of Architects, the Institute of Builders, the National Federation of Building Trades' Employers, the Surveyors' Institution, and the Quantity Surveyors' Association. At the request of the meeting the chair was taken by the President, Mr. John W. Simpson. A friendly discussion took place upon some introductory remarks by the chairman, and it was unanimously agreed that a new form of conditions of contract between employers and builders should be drawn up for general use in the building industry of England and Wales. A sub-committee of four builders and six professional men was then appointed to consider the matter and report to the parent conference.

New Hon. Secretary R.I.B.A. Australia.

Mr. G. C. Inskip [F.] has resigned the Honorary Secretaryship of the R.I.B.A. in Australia after a period of twenty years' service, and Professor Leslie Wilkinson [F.], of the School of Architecture, University of Sydney, has been appointed to the position.

Proposed National Housing Policy on a Contributory Basis.

The Council of the Royal Institute have taken the initiative in the formation of a Joint Committee to investigate and report on the possibility of formulating a National Housing Policy on a contributory basis to come into operation on the termination of the Government's present commitments. The Committee consists of the President, Mr. John W. Simpson, the Hon. Secretary, Mr. Arthur Keen, Mr. J. S. Gibson, Mr. W. Curtis Green, Mr. Horace Cubitt, *appointed by the R.I.B.A.*, Sir Theodore Chambers, Mr. George Corderoy, Mr. Cuthbert Lake, Mr. Dendy Watney, *appointed by the Surveyors' Institution*. The Chairman or Secretary of a Building Society is to be added, and the Committee have power to co-opt additional members and to consult experts whose advice might be of value.

The Dome of St. Paul's.

The Times publishes the following statement:—The experiment of plumbing the dome of St. Paul's has just been carried out, with an apparatus specially constructed for the purpose, after an interval of more than eight years. Canon Alexander informs us that, as far as this particular method of investigation went, the results were very reassuring. It is well known that in the course of the original building the dome settled several inches towards the south-west, and caused the unstable conditions which the present great scheme of preservation of the fabric is intended to rectify. The plans on which the cathedral architect, Mr. Mervyn Macartney, is working have been carefully examined and highly commended by the Society for the Protection of Ancient Buildings.

Welwyn Garden City : an Invitation to Members.

The Garden Cities and Town Planning Association invite Members and Licentiates of the Institute to pay a visit to Welwyn Garden City during the summer. Situated amid the most charming scenery in Hertfordshire, the new Garden City is twenty-one miles from King's Cross (three miles from Hatfield), lying between the River Mimram and the River Lea, two miles from the village of Welwyn. The neighbourhood abounds in places and points of interest—Sherrards Park Wood, for instance, with remains of a magnificent oak wood consisting almost entirely of the indigenous *Quercus Se-siliflora*; the Parish Church of Digs-well, dating from the thirteenth to the sixteenth century and containing many objects of interest. Welwyn Garden City, one of the few towns in England which have been planned as a whole, is designed specially for modern requirements of industry and residence. The permanent belt of woodlands and the farms scattered round the town will for all time maintain its rural character. Arrangements will be made to conduct visitors round the estate on application to the Organiser, Mr. A. T. Pike, Garden Cities and Town Planning Association, 3 Gray's Inn Place, Gray's Inn, W.C. The return fare from King's Cross is 6s. 2d.

The A.A. Building Debt : Issue of Debentures.

In order to raise funds immediately for the payment of the Architectural Association building debt, it has been decided to issue debentures in multiples of £50 amounting to £20,000 bearing interest at the rate of 6 per cent. per annum, payable half-yearly on 30th April and 31st Octo-

ber. Debentures will be redeemable by annual drawings to commence at the expiration of one year from the date of issue, and a sum of £500 will be applied each year for this purpose, but the Council reserves to itself the right to redeem debentures to over and above this amount as opportunity allows, particularly from donations which it is hoped to receive from an appeal to be issued for an endowment fund. The debentures will be a first charge on the assets and property of the Association, which provide more than ample security for the amount to be raised.

The assets of the Association are as follows: (1) Forty years' lease, dating from 1917, of the premises in Bedford Square, held from the Bedford Estate at a rental of £300 per annum. The premises comprise two houses (Nos. 34 and 35) which have recently been reconstructed to form one building, together with a large block of four studios with a connecting gallery to the front block of buildings, and having also a separate entrance in Morwell Street. In all a sum of £25,000 has been expended on alterations and re-building. (2) Furniture and equipment generally, including all the requirements of a club, valued approximately at £7,000. (3) A valuable library of architectural books which at a very conservative estimate is worth £5,000.

Prospectuses and application forms may be obtained from The Secretary, A.A., 34-35, Bedford Row, W.C.

Appointment.

Professor S. D. Adshead, *Vice-President*, has been appointed by the President to give evidence on behalf of the Royal Institute before the Government Committee on the High Cost of Building Working Class Dwellings.

MINUTES. XIV.

At the Fourteenth General Meeting (Ordinary) of the Session 1920-21, held Monday, 23rd May 1921 at 8 p.m. Present: Mr. George Hubbard, F.S.A., *Member of Council*, in the chair, 35 Fellows (including 12 members of the Council), 58 Associates (including 3 members of the Council), 8 Licentiates, and numerous visitors, the Minutes of the Meeting held 2nd May, having been published in the *JOURNAL*, were taken as read and signed as correct.

The decease was announced of the following members: Herbert William Walker, of Colombo, Ceylon, *Associate*, elected 1897; Captain Morley Pope and William Hampden Sugden, *Licentiates*; Professor Martin Nyrop, of Copenhagen, *Hon. Corresponding Member*, elected 1906. On the motion of the Hon. Secretary it was Resolved that the regrets of the Institute for the loss of these members be entered on the Minutes of the Meeting.

Mr. Robert Atkinson [*F.*] having read a Paper on *THE DESIGN OF THE PICTURE THEATRE*, and illustrated it by lantern slides, a discussion ensued, and on the motion of Mr. A. E. Newbould, M.P., seconded by Major R. Grierson, a vote of thanks was passed to Mr. Atkinson by acclamation and was responded to.

The Meeting terminated at 10 p.m.

Professional Announcements.

Messrs. Traylen & Lenton [*A.A.*], of Stamford, are opening an office at 30, Queen Street, Peterborough, taking into partnership Mr. J. Guy Warwick [*A.A.*]. The name of the Peterborough firm will be Traylen, Lenton and Warwick.

Messrs. Flockhart & Guthrie, Architects, have removed from 10, Conduit Street, to 37, Bruton Street, W.

Messrs. Boswell & Guthrie, Architects, have removed from 10, Conduit Street, W., to 37, Bruton Street, London, W.

Mr. A. Y. Mayell, *Licentiate* (of Messrs. Hukins & Mayell), has removed his offices from 124, Westbourne Grove to 73, Holland Park Avenue, W.

COMPETITIONS.

Hagley, Salisbury and Renfrew War Memorials.

Members and Licentiates must not take part in the above Competitions because the Conditions are not in accordance with the published Regulations of the R.I.B.A. for Architectural Competitions.

Sutton Coldfield, Rothesay, Queensbury, Wick and Hagley War Memorials.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competitions are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment, and in the meantime Members and Licentiates are advised to take no part in the Competitions.

Blackpool War Memorial.

Qasr el 'Aini Hospital and School, Cairo.

Bengal Council Chamber.

Canadian Battlefields Memorials.

The Conditions and other documents relating to the above Competitions may be consulted in the Library.

R.I.B.A. Liverpool Conference, 24th and 25th June, 1921.

PROGRAMME.

Thursday, June 23rd Members arrive in Liverpool.

Friday, June 24th.

10 a.m. Official Opening of the Conference and Reception by the Lord Mayor of Liverpool.

10.30 a.m. to 1 p.m. Papers followed by discussion on "The Unification and Registration of the Architectural Profession," "Official Architecture," "Propaganda and Publicity."

2 p.m. Excursion to Port Sunlight and Bromborough Pool.

7.30 p.m. Banquet at the Midland Adelphi Hotel.

Saturday, June 25th.

10.30 a.m. to 1 p.m. Papers followed by discussion on "Building Contracts," "Architectural Education," "Present-day Building Problems."

2.30 p.m. Visits to Liverpool Cathedral and the Cunard Building.

4 p.m. Tea at the Britannia Café at the invitation of Messrs. Willink and Thicknesse.

4.30 p.m. Trip up the river arranged by the White Star Steamship Company.

Sunday, June 26th.

11 a.m. Service in Liverpool Cathedral.

1. The Headquarters of the Conference will be in the Conference Room in the Walker Art Gallery, where there will be an Exhibition of Students' drawings on view.

2. Members of the Conference are requested to make their own arrangements for hotel accommodation. The hotels specially recommended are:—

The Midland Adelphi Hotel.

The Exchange Hotel.

The London and North-Western Hotel.

3. The Conference Banquet, at which ladies are particularly invited to be present, will be held at the Midland Adelphi Hotel (evening dress, medals, etc.). The price of the banquet will be 12s. 6d. each, exclusive of wine and cigars.

4. Members who intend to be present at the Conference are requested to communicate as soon as possible with the Secretary R.I.B.A., 9, Conduit Street, London, W.1, stating the fact and mentioning whether they will be present at the banquet and be accompanied by any guests.

Office Experience for Ex-Service Men.

Mr. T. P. Bennett [F.R.I.B.A.], Head of the Department of Architecture, Surveying and Building, Northern Polytechnic Institute, Holloway, N.7, writes: "Arrangements were made in 1920 to place in offices ex-Service men training as architects for a portion of the Long Vacation to give them office experience. The scheme proved so successful that it is proposed to put it into force again this year. I should therefore be glad to hear from any architects who would take one or more of such men during the months of August and September."

NOTICES.

Amendment of By-laws *re* Hon. Associates.

A SPECIAL GENERAL MEETING, summoned by the Council under By-law 65, will be held Monday 6th June 1921, at 8 p.m., when the Chairman will move that effect be given to the resolution of the General Body passed on 28th February 1921, viz., that the number of members in the Honorary Associate class shall not exceed sixty; that the entrance fees and annual subscriptions of Honorary Associates be abolished, and their privilege of voting in the election of Council and Standing Committees be withdrawn.

(CHAIRMAN to move the following resolutions:—

- (1) That the following provision be added to By-law 4: "The number of members in the Class of Honorary Associates must not exceed sixty."
- (2) That clause (c) in By-law 17, which provides for the payment by Honorary Associates of entrance fees and annual subscriptions, be deleted.
- (3) That the following words be added to By-law 63: "or in the election of the Council and Standing Committees."
- (4) That By-law 16, which provides for the transfer of a Fellow who has retired from practice to the Class of Honorary Associates, be deleted.

The Annual Elections, 6th June.

The FIFTEENTH GENERAL MEETING (BUSINESS) of the Session 1920-21 will be held Monday, 6th June 1921, immediately following the Special General Meeting summoned above, for the following purposes:—

To read the Minutes of the General Meeting (Ordinary), held 23rd May 1921: formally to admit members attending for the first time since their election.

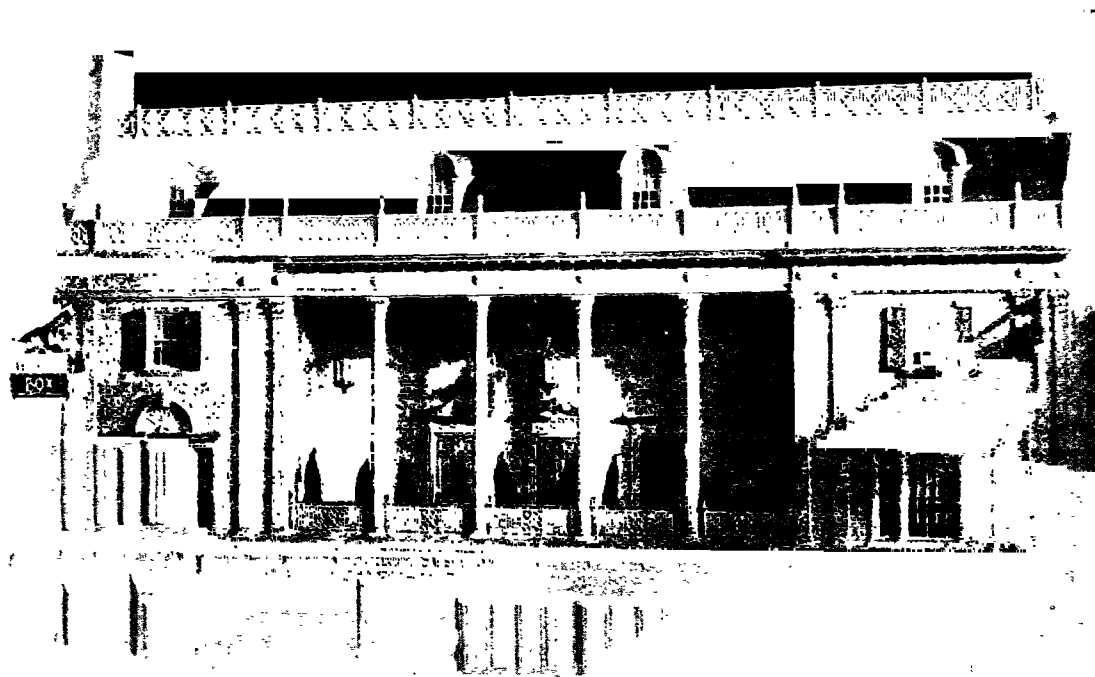
To proceed with the election of members. [*The names of candidates, with the names of their proposers, were published in the first announcement of the meeting, JOURNAL, 7th May, p. 404.*]

To read the reports of the Scrutineers appointed to examine the voting papers for the election of the Council and Standing Committees for the Session 1921-22.

Testing Steel and other Metals: Demonstration, 6th June.

The members of the Science Standing Committee, the District Surveyors, and a number of experts have been specially invited to be present at the Demonstration of the Working of the Casella Machine for testing steel and other metals, which will take place at the Institute on Monday, 6th June, after the Business Meeting above announced.

OFFICES WANTED in Gray's Inn, Bedford Row, or John Street—2, 3, or 4 good rooms. Address Box 185, Secretary R.I.B.A., 9, Conduit Street, W.



MODEL OF THE MUSIC BOX THEATRE, NEW YORK.
(C. Howard Crane, architect.)

THE DESIGN OF THE PICTURE THEATRE.

By ROBERT ATKINSON [F.].

Read before the Royal Institute of British Architects, Monday, 23rd May 1921.

INTRODUCTION.

ONE of the most astounding events of modern times has been the development of motion picture theatres, beginning as penny gaffs, sporting the doubtful patronage of the gaping credulous and looked upon as something on a level with Barnum's side shows, the whiskered lady and the fasting gentleman, then progressing through the various stages of the vacant shop, the abandoned skating rink, and the temporary booth, to the not less doubtful level architecturally of the imitation Earl's Court, or the much worse buildings of the wilfully ignorant and rapacious speculator—a period of development when to be even remotely connected with the cinema trade was a stigma sufficient to deter the boldest adventurer—to the higher level of good buildings specially erected by good architects, well equipped, a level which was considered final by the world of yesterday, which is even now as thoroughly out of date as things a hundred years old would be in any other range of development. Even opera houses of standing are puny and pitifully defective compared with the magnificent *theatres*, not *gaffs*, of the moving (literally) picture world of to-morrow.

The picture theatre of to-day seats 2,500 people more or less as a normal theatre, and has colossal brothers having a capacity of 5,000 and over, with a degree of dignity and value of design which very few real theatres possess. After all, is not the picture theatre a development and an advance on normal theatre designing? Theatre design, which has stood still for a hundred years, more or less, still perpetuates the old defects despite the possibilities of modern construction, and the moving picture has overtaken the theatre, passed it, and incidentally applied to theatre design the impetus which conservatism and lethargy in design had stifled almost to death, at any rate in England. In Germany

progress has been made, and recently in America the running had been taken up by the proper organisation of theatre design, beginning and often ending with the employment of really *first-class* architects. In England, unfortunately, the first-class architect has not been employed as often as one would wish, whether it be that the picture theatre is beneath the notice of the heads of the profession, or more logically, perhaps, the lack of selective ability of the promoters themselves is to blame. However, the day has arrived when millions are invested or being invested in the picture theatre, and hundreds or thousands spent even on individual buildings, therefore the architect is beginning to sit up and take notice.

Now the picture house is a place where one goes to see the pictures, and incidentally it can be a place where the other senses can be gratified as well. The development of the picture theatre into an opera house and concert hall, a combination of fine stage settings and gorgeous decorations, cannot be conceived by any one who has not seen the latest thing in this way in any large town in America, and in New York repeated a dozen times over. It has recently been my pleasure to inspect these buildings, and I hope, incidentally, to-night to lay before you the result of my analysis of their merits and defects.

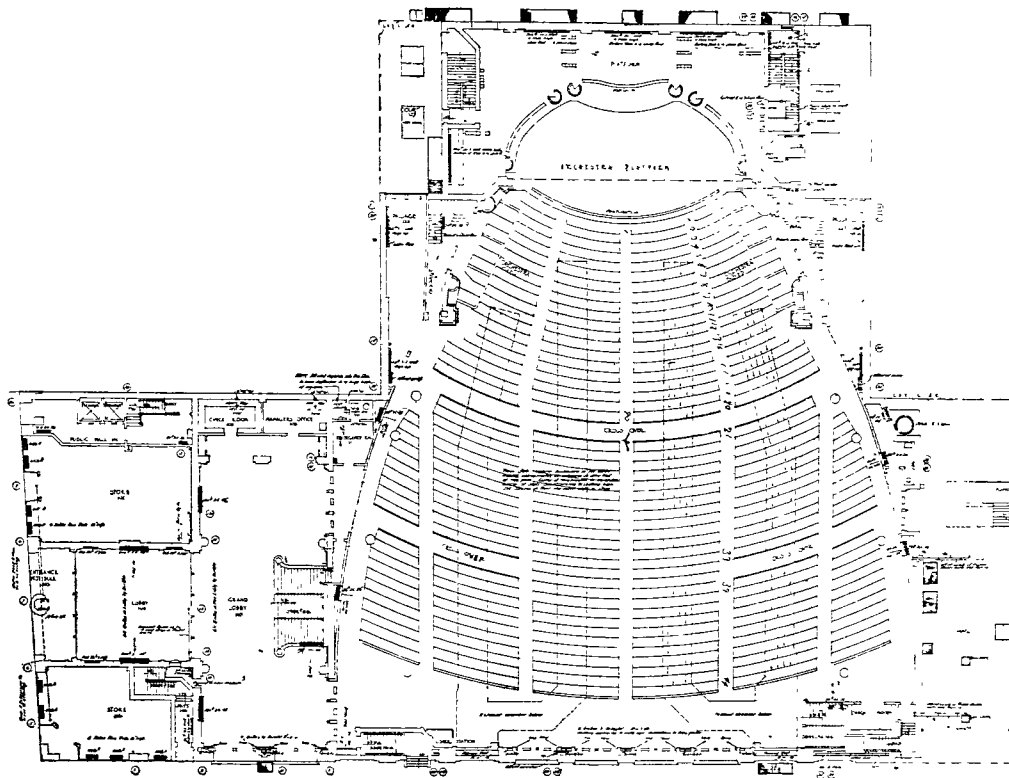
Since the time of the Greeks, theatre *roofing*, not theatre seating, has been the critical difficulty to be faced by the architect, and it is remarkable how few examples of successful roofing there exist. Eighteenth century theatrical designers piled up tiers and tiers of boxes in an endeavour to secure the maximum seating capacity within the circumscribed area possible to roof, and with a great measure of success, so long as the so-called architectural orders were omitted from the design (except, perhaps, to decorate the proscenium opening), and so long as the semicircular or segmental shaped plan was persisted in. (Bath, Bristol, Sadlers Wells.)

The changes introduced in recent years of putting the stalls in place of the pit made a break in traditional theatre designing which led to many regrettable results, due very largely to a bad period of taste which has extended to our own days. Not only were heavy orders and details of great scale introduced which obstructed vision and occupied space and which were so high as to cut through balconies in an endeavour to make the interior one storey in appearance, but the dome, a feature which needs a maximum of support, was gaily dragged in and suspended from heaven by goodness knows what means. A dome which is bad acoustically and which does not arise from the planning is doubly condemned, but unfortunately architects, although logical in planning, are far from logical in decoration. Most modern designers do not seem to have got beyond the stage of preconceived ideas: thus Egyptian theatres (so called because the detail is Egyptian), Assyrian theatres, Greek theatres, etc., are the rage.

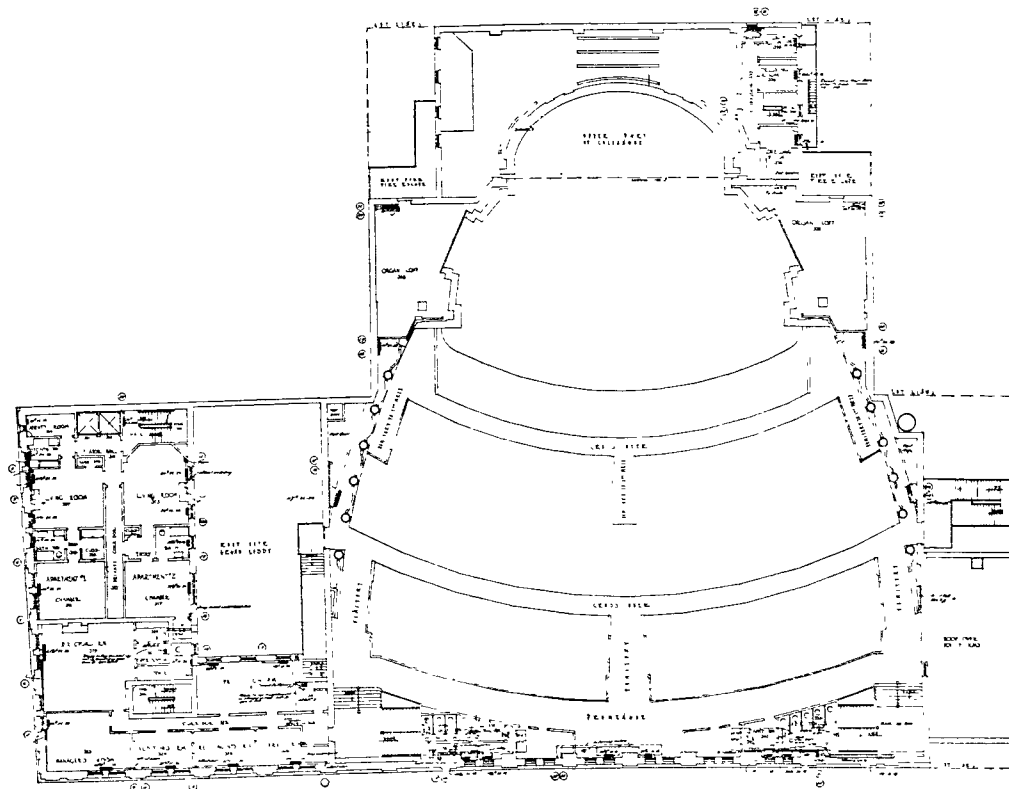
THE PICTURE THEATRE.

The picture theatre does introduce new features into theatre design, but not sufficiently radical to submerge the traditional *theatre*. Whilst in the ordinary theatre the seating must be concentrated to within the limits of carry of the spoken word, the picture theatre is limited only by the power of vision of the public, and conversely to the ordinary theatre the nearer seats are not of such great value as those further removed. Again the eighteenth century theatre scores, because the ranges of boxes were sufficiently removed to give the best "*tout ensemble*" of the scene, whilst the modern theatre boxes and nearer seats are defective in every respect, so really the picture theatre returns to the older traditions and places its best seats some little distance from the scene.

The most serious limitation of the picture theatre is the risk of distortion from angle views on to a flat screen, and again the early traditional fan-shaped theatre meets the difficulty by placing the fewest possible seats outside a reasonable angle of vision. As already stated, the limit of depth of a picture theatre is only regulated by the vision of the audience, and it is an open question whether already in the larger theatres in America this has not been overstepped.



Plan of Orchestra Floor.

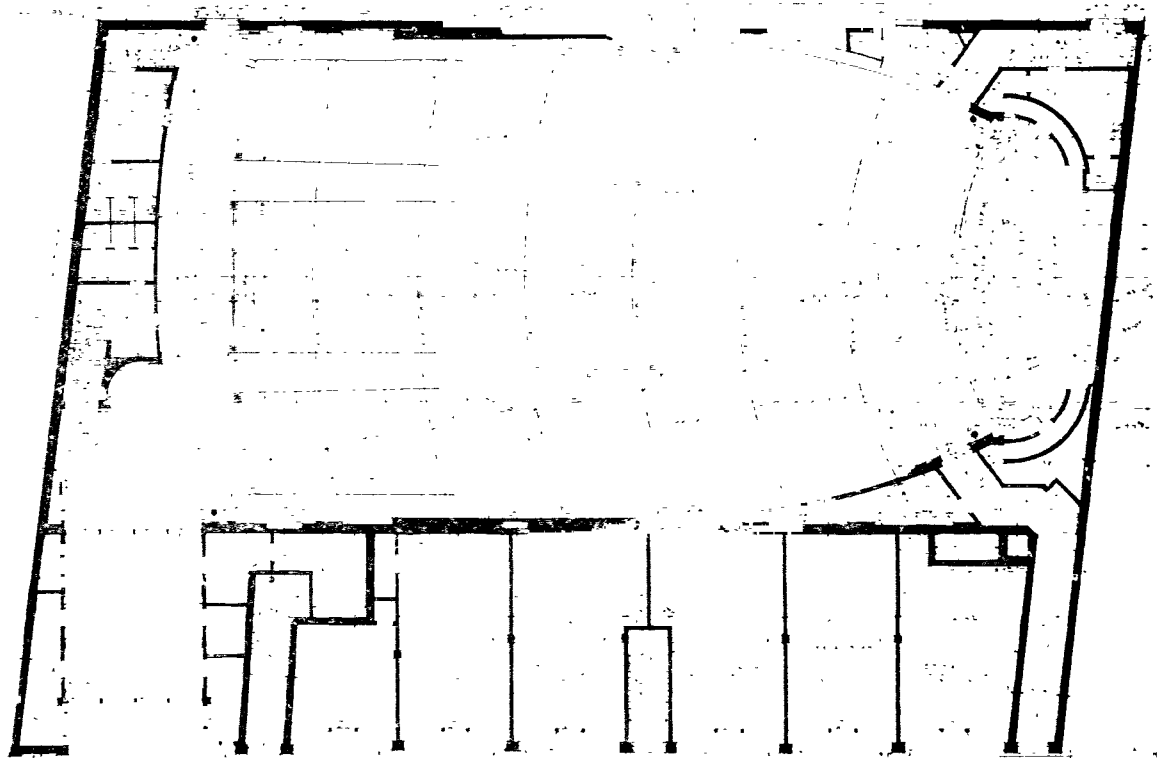


Plan of First Mezzanine Floor.

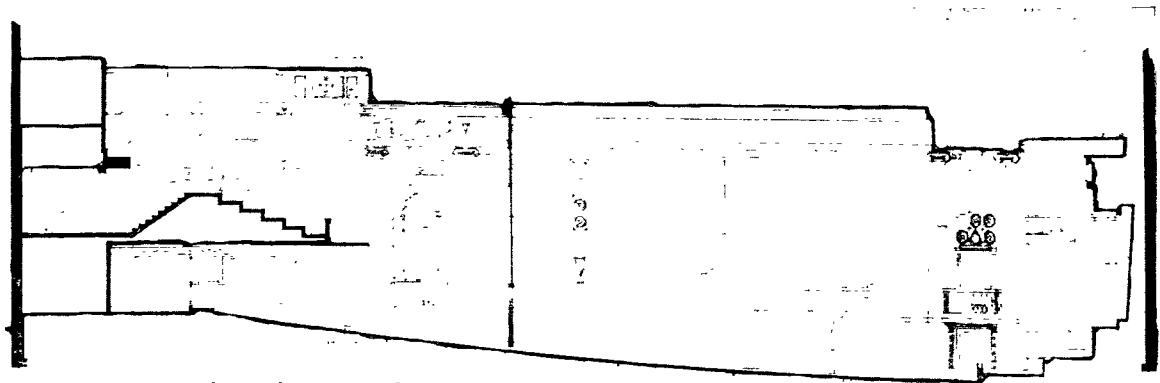
THE CAPITOL THEATRE BROADWAY AT 51ST STREET, NEW YORK.
(Thomas W. Lamb, architect.)

PLANNING GENERALLY.

The planning of the picture house revolves very largely about the projection of the picture on the screen, and which is combined with good vision or sighting for the body of the auditorium, and good exits in case of emergency, etc. Where the site is cheap and sufficiently ample a one-storey theatre is the most economical up to a seating capacity of 1,500 persons, but for expensive sites and for large



Main Floor Plan



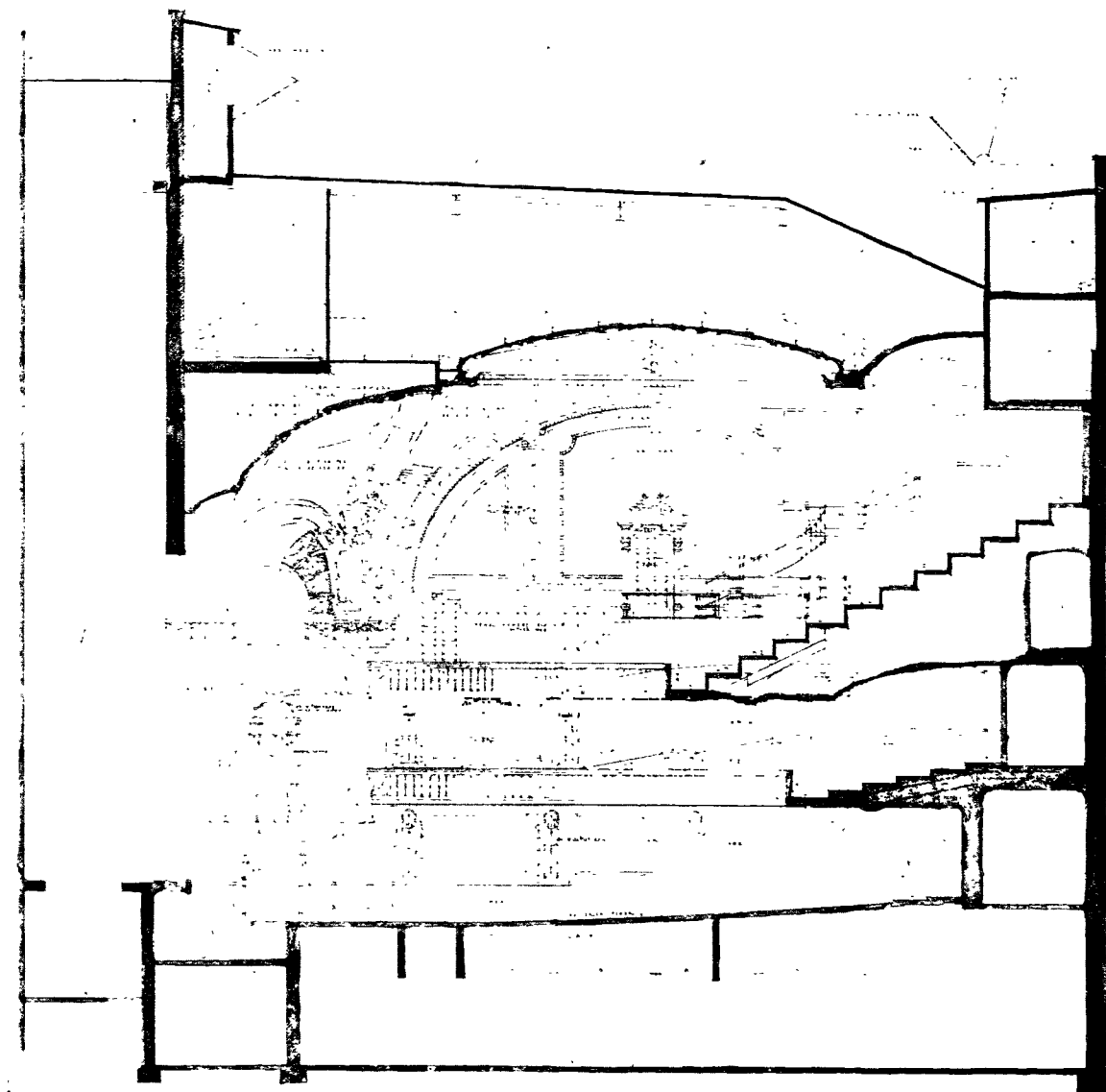
Longitudinal Section

ALLEN THEATRE, WINDSOR, ONTARIO. (C Howard Crane, architect.)

capacities a double-storied theatre becomes essential ; roughly by introducing a balcony the seating can be doubled ; thus a 3,000 theatre can be made to accommodate 1,500 on the auditorium floor, and 1,500 in the balcony. Three-tier theatres, the usual type for the normal theatre, are very difficult to work as picture theatres ; not only is the projection seriously elevated if the projection is from the top, but

it gives distorted views of the screen from the top balcony and the stage setting has to be correspondingly elevated to secure good vision ; actually given the same area the two-tier theatre can be planned to accommodate an equal number of spectators.

To plan logically the demand for the greatest possible number of seats at some little distance, say 50 or 60 feet from the screen, and yet not too far removed (120 feet), points to the fan-shaped theatre as



THE CAPITOL THEATRE, DETROIT.
(C. Howard Crane, architect)

being the most suitable ; not only does it provide the maximum good seats but it eliminates the bad near-side seats. In section, too, the converging sight lines suggest the conical outline, a return to the Roman vallerum in principle. Again, the acoustical properties of the cone are as nearly perfect as possible, giving (1) a confinement of volume in a given direction ; (2) an elimination of reverberation owing to the side walls being more or less coincident with the line of sound expansion ; and (3) finally, if the sound volume exhausts itself at about the extent of the depth of the auditorium (100 to 120 feet

from the source), an echo is practically impossible. Where halls are shorter than this distance the rear walls should be padded as sound absorbers, and if the hall is large the side walls and ceiling should be hollow so as to increase the consonance. I need not repeat here that a dome, however flat, reflects sound waves towards a focus, and so causes an anti-climax of more or less intensity. Apart from capacity and shape, the question of seating and sighting lines is of paramount importance.

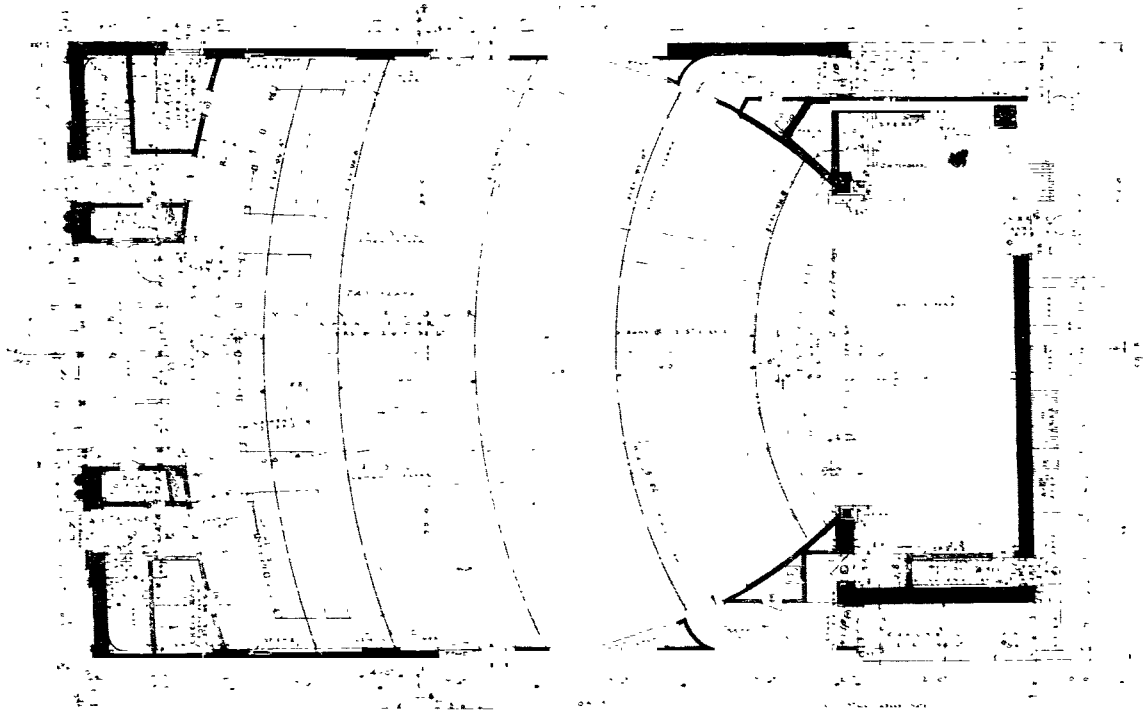


THE CAPITOL THEATRE, DETROIT. (C. Howard Crane, architect.)

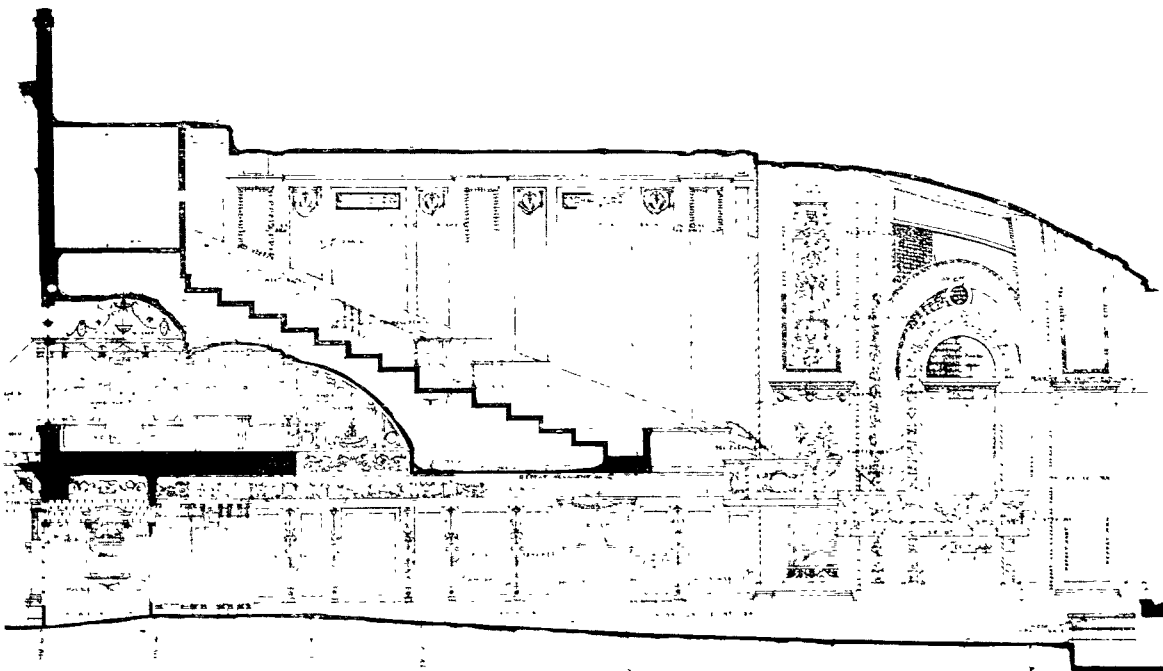
SIGHTING LINES : CLEARANCE.

Sighting lines are usually so arranged that each person has a clear view of the bottom of the picture, obtained by sloping the floor or stepping the balcony, as the case may be, so that the vision line is 3 inches above the vision line of the seat in front. This, with the possibility of staging the seats, gives a clearance of 6 inches between alternate rows of seats. Where the theatre has a balcony the top of the picture should be visible from the rear seats under the balcony.

A complication of sighting lines has been introduced recently in the larger theatres, where an orchestra of anything from 40 to 60 performers plays a great part in the entertainment given. Such an orchestra in some cases (Tivoli, Rialti, N.Y., etc.) is of sufficient merit to rival those of first-rate promenade



Main Floor Plan.



Longitudinal Section.

THE THEATRE, WALKERVILLE. (C Howard Crane, architect.)

concerts, and staging after the manner of concert platforms has to be introduced to accommodate them. These too must be within the vision of the entire house, so that the sighting lines must be lowered to give a clear view.

A third complication, but not presenting any difficulty in sighting, is the introduction of a more or less large stage for the finer setting of the picture, and incidentally for special concert turns between the pictures, or for the setting of tableaux supplementary to the more important pictures themselves.

SEATING.

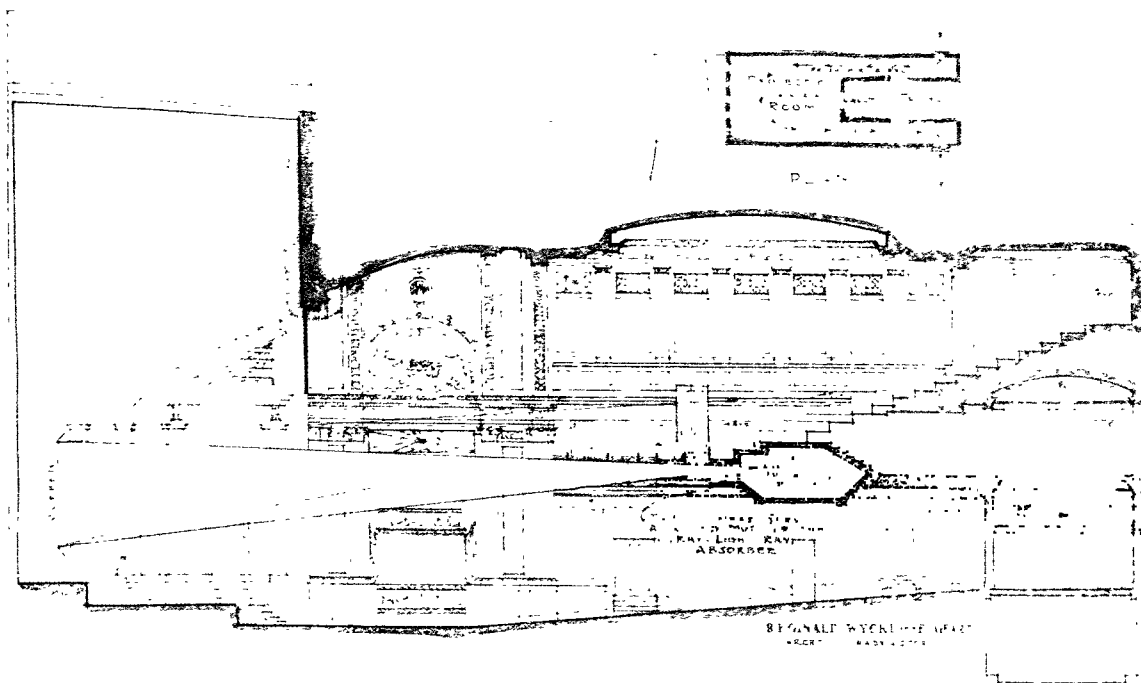
The seating is usually spaced 2 feet 6 inches by 1 foot 6 inches in the cheaper seats, with a gradual increase in spacing up to 3 feet by 2 feet in the best seats. No seating should be nearer the picture than the length of the screen; in other words an angle of 60° for each extremity of the screen will give the line of the first seat and an angle of 120° will give the angle of the extremity of seating to right and left.

Gangways not more than 12 seats apart should be not less than 3 feet 6 inches wide, and should gradually widen towards the exits or entrances. For boxes, or more properly "loges," the seats may be movable and more generous in size. Side-boxes are not desirable, and the space usually given up to the stage-box is in American theatres employed for an organ, which is often in two halves and controlled from the orchestra.

The seating usually radiates to a point in the rear of the picture and the balcony follows the same curve.

PROJECTION.

Projection is really the crux of the theatre planning, or one ought more properly to say of the theatre section. It is best to lay down the projection and to build the theatre round it. The projection may be very easily worked from the back of the theatre in a building without a balcony, but becomes increasingly difficult where one or two balconies are introduced, because of the angle of projection, which results in either or both a tilted screen and a distorted picture. Where the angle becomes steep (say 15° from the horizontal) it is a question whether a better method of projection may not be secured by projecting from under the balcony, or from a booth in the thickness of the balcony.



GRANDALLS STRAND THEATRE, SHOWING PROJECTION ROOM LOCATED IN BALCONY.
(R. W. Geare, architect, Washington.)

The ideal projection, of course, is the perfectly level throw, and this can be secured by these latter means, with, however, some little risk of vibration in the balcony type of projection, but in a large theatre probably negligible, and has the advantage of a short throw. The length of projection and the size of the picture are other difficulties ; the length of the projection should not exceed 100 feet, but up to 150 feet has been done, and the picture will vary in size with the theatre itself, but as a rule any picture which appears to be over life size from the back of the auditorium is too big, and *vice versa*. A 12 foot picture is usually considered life size, and unless in a very small room should not be smaller.

				Throw.					Throw.
12 feet	..	..	..	50 feet.	21 feet	..	..	..	125 feet.
15 feet	..	..	..	75 feet.	24 feet	..	..	..	150 feet.
18 feet	..	..	..	100 feet.					

The screen itself is better of solid plaster distempered white, and not of too smooth a surface (which reflects too sharply). Rear projection has been tried but is not considered as good as front projection, although it has certain advantages, for instance the shortness of throw, and the dead level projection ; the screen in this case is of ground plate-glass, and the throw should be 50 feet or over.

SIZE OF THEATRES.

The auditorium of a theatre to seat 1,000 on one floor will need to be approximately 80 feet by 120 feet, and for 1,500 people 120 feet by 150 feet ; with balconies, these figures can be doubled. Outside this a space in proportion for entrances, lobby, resting room, etc., will be required.

Sites should, of course, have at least two outside walls to streets, and where the capacity is 2,000 or over isolated sites should be selected or allowance made for lateral open spaces on the ground itself.

ONE-STOREY THEATRES.

The one-storey theatre, as before stated, is essentially the cheapest both to construct and to ventilate and to run. A very ingenious section adopted in America enables every inch of site to be utilised as seating room by placing the entrances under the higher part of the raked floor, and leading into the seats by tunnels after the fashion of a modified amphitheatre.

Such a theatre is easily emptied in case of emergency, need not be high internally, and even provides spaces for shops on the exterior walls under the seating.

TWO-STOREY THEATRES.

The two-storey theatre immediately introduces complications in planning which the one-storey theatre is free from—exit stairs, balcony constructions, etc.—and is even more complicated in the three-storey theatre.

BALCONY DESIGN.

Balcony design has been radically changed, and instead of the restricting columns or timid cantilever construction of the theatre of the last century balconies are now designed to carry 1,000 to 1,500 persons on anything from 12 to 20 rows of seats, as well as probably a row of "loges" surrounding the outer rim of the balcony curve. Such a structure projecting 50 to 100 feet, and rising at an angle of 20° to 30°, presents a problem which outweighs anything else in theatre design. Usually, such a balcony is fed at two or more levels through its thickness in the manner of the seats in an amphitheatre, and the large spaces left are utilised as retiring rooms, smoking rooms and lounges generally. Very frequently a large portion of the lower ceiling is omitted and great play made of mezzanines and wells visible from the auditorium itself, thus certainly improving the value of the rear seats and helping ventilation. These great balconies are built only partially on the cantilever principle. A great lattice girder 10 or 12 feet deep is first placed at the nearest point to the front of the balcony which will provide sufficient depth. The cross beams are then placed running forward as cantilevers to the front edge. Through the spaces of this great lattice girder the tunnels feeding the seats have sufficient headroom to

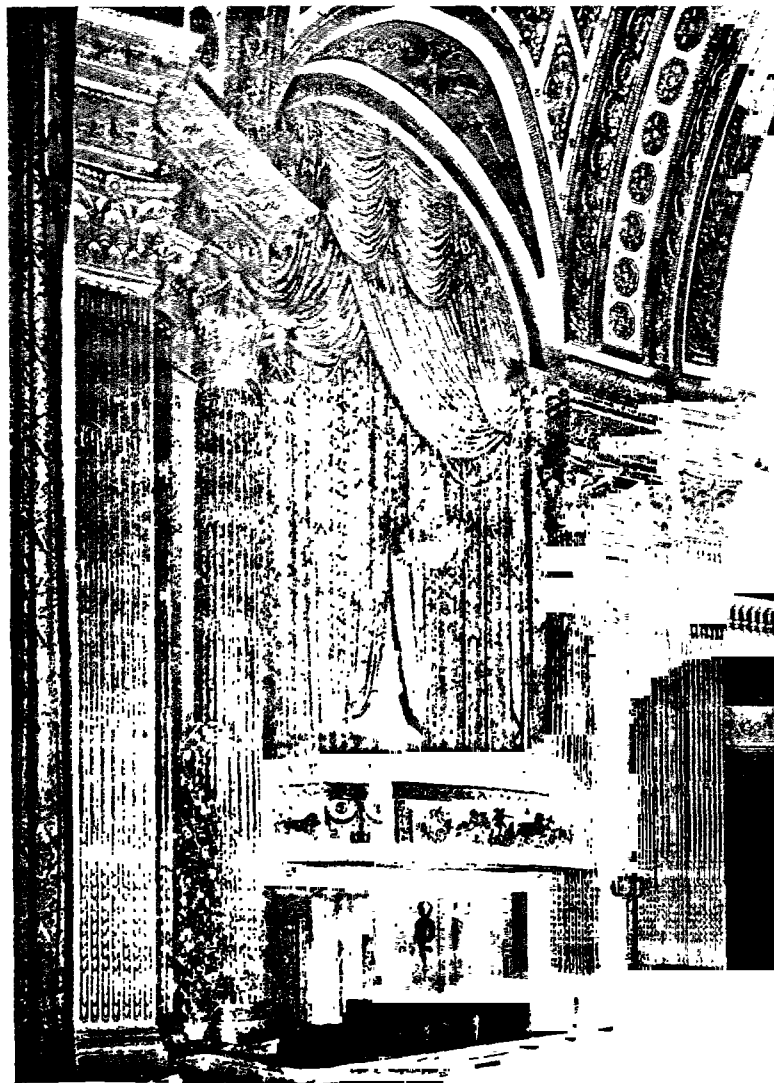
pass. This is certainly the most economical form of gallery construction, and, compared with the huge cantilevers which it replaces, is very simple.

EXITS.

Exits to a theatre should be exceedingly generous, and certain American theatres are object-lessons in this respect, the entire rear walls being opened out as exits. It is usually by the familiar *way in* that people will endeavour to escape in case of panic, and for this reason entrances should be very ample and extra exits provided into side streets as near as possible and certainly visible from the usual way out.

Stairs should lead from each floor entirely uninterrupted by cross passage or by secondary converging streams of people from another level. In American theatres the escape stairs are generally of iron, suspended outside the main walls of the building, and are fed at several different levels without increasing perceptibly in width, a method which enables valuable sites to be fully utilised, but which is very unsatisfactory.

Another method which has been tried in California is for all the entrances and main exits to be by *ramps*, certainly very good but expensive as to the area occupied.



DETAIL OF BOX, CAPITOL THEATRE, NEW YORK
(Thomas W. Lamb, architect.)

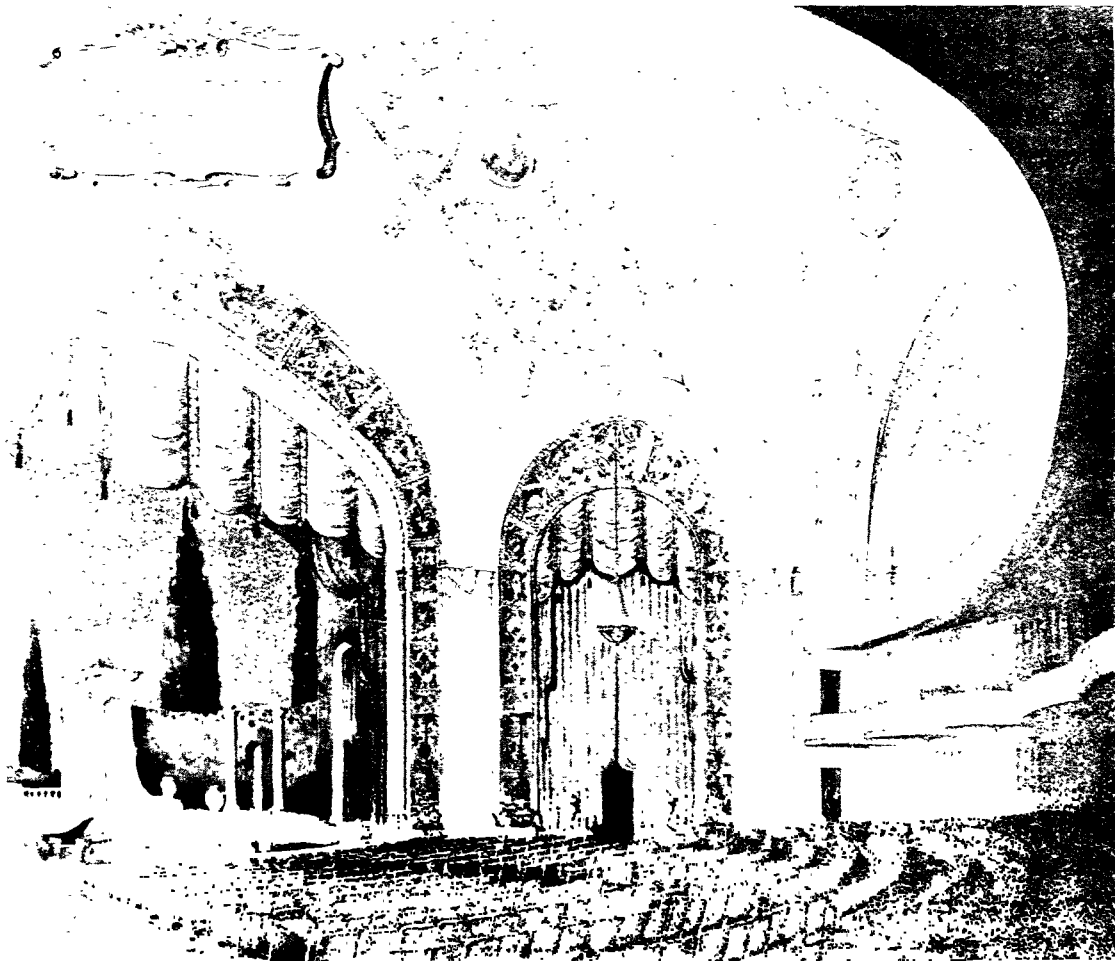
FEEDING THE THEATRE.

The working of a picture theatre differs considerably from the usual type ; instead of fixed performances, the continuous performance given in most picture theatres is a source of continual entry and exit. Whilst in many cases entrance is unrestricted, it should be allowed only in the short intervals between the pictures, and in this arises the necessity for large waiting spaces outside the theatre proper, but beyond the entrances and the pay-boxes : for instance, a theatre seating 2,000 may discharge 500 people after a particular picture, and these seats, unless immediately refilled, stand idle until the next interval. It is obviously impossible to book sufficiently rapidly to fill this void in the two or three minutes interval, so generous queuing spaces must be provided.

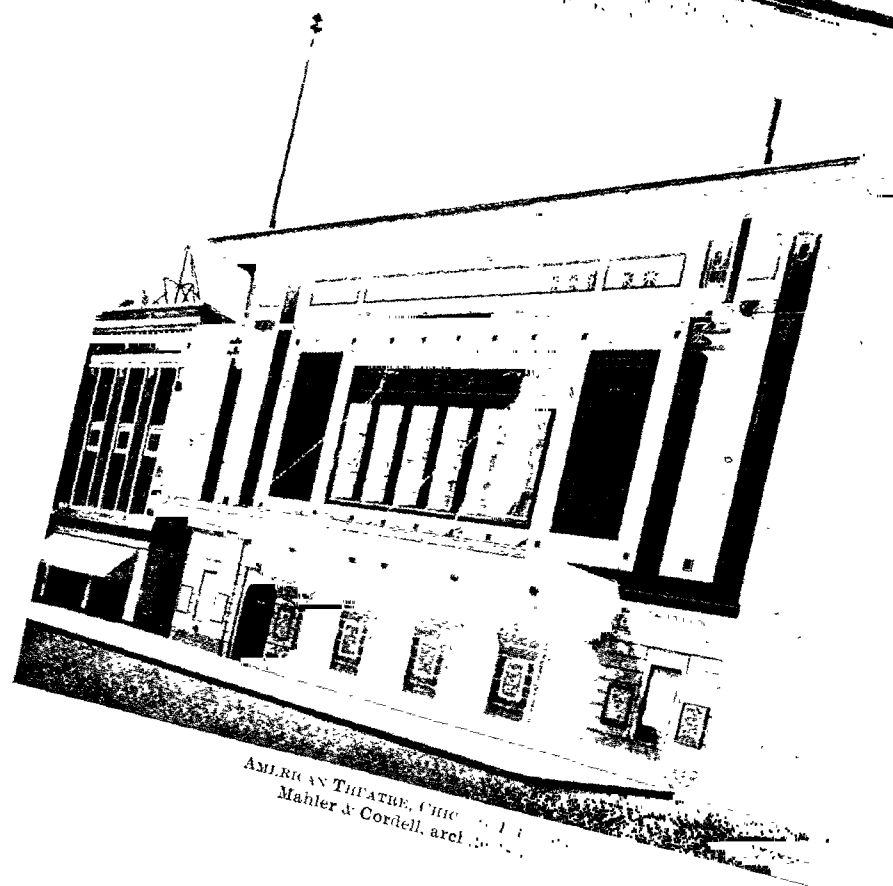
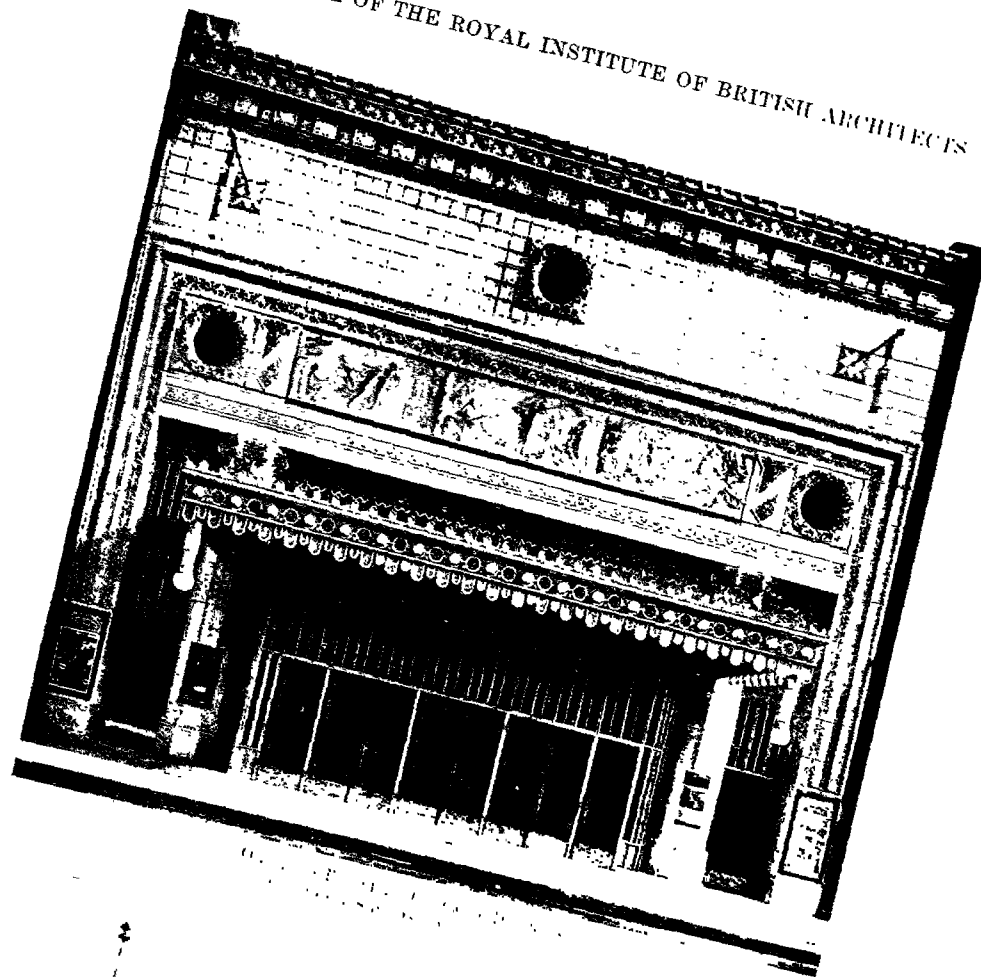
DECORATIVE EFFECTS.

It cannot be said that picture theatre designs have evolved any special expression either in internal decorative design or as external expression, beyond, perhaps, the more or less glorified niche as an entrance doorway.

Despite the progress in planning already made on that of the ordinary theatre, the internal scheme is very largely based upon the out-of-date work of the last century, colossal ceilings, with heavy ornament : domes and candelabrum, with a proscenium opening either arched or square, and equally



THE CAPITOL THEATRE, DETROIT.
(C. Howard Crane, architect.)



AMERICAN THEATRE, CHICAGO
Mahler & Cordell, archt.

colossal in character, seem still to be the sum total of effects. Many of the smaller theatres are distinctly bad in taste, restless in ornament, badly designed, and as badly modelled, generally consisting of *stock* ornament lumped in or eliminated to suit a fixed sum available, and externally, a wide opening, with or without a valance, larded all over with ferocious posters of petrified film incidents enlarged and coloured. When will film salesmen acknowledge that film art and poster art are totally different things?

The very finest theatres in America have harked back to a kind of Pompeian Adams motive for their internal details, very tasteful, well modelled and well designed (Century Theatre), particularly those designed by Mr. Crane, of Detroit, and Mr. Lamb, of New York, whose work I am principally illustrating.

The theatre internally needs very special powers of design; no preconceived ideas of symmetrical elevations are of any value. The design must build up from the plan and in visual effect concentrate on the pro-cenium opening, then gradually be reduced in value backwards. A symmetrical ceiling, circular or square, is nearly always an impossibility, and besides, can never be seen except, perhaps, from a few seats at the rear of the balcony. Likewise the flanking walls, cut up as they are by sloping floors and balconies, provide only, as a rule, a comparatively small space near the proscenium, where any unrestricted wall space is available. These may be treated in a large way as a return and support to the proscenium, but the rest of the rear spaces are best left as a foil to the richness concentrated around the focal point, the *Proscenium*. The funnel shape of the Goodyear Theatre at Akron, Ohio, eliminates many of the old prejudices, and approaches the logical views expressed. Externally the special character of the picture house is now recognised by its mass of posters, and artistically oscillates between the extreme of badness and a type of classical purity equally unresponsive to the use of the building.

Some buildings show an opening surrounded by several storeys of what may be an office building; others are adaptations of Italian palaces, and one of the latest is frankly a Greek Doric frontispiece standing on a glass valance. However, amongst the better designed small theatres, a type of front is being evolved which expresses very rationally and artistically the building and its purpose. And no doubt before long, as the process of evolution progresses, the picture theatre will be a thing of beauty, and equal in standing to anything designed for other purposes.

DISCUSSION ON THE FOREGOING PAPER.

MR. GEORGE HUBBARD, F.S.A. [F.], in the Chair.

MR. A. E. NEWBOULD, M.P., in proposing a vote of thanks for the Paper, said he thought Mr. Atkinson had been extremely modest in that he had not shown slides of some of his own work. But the drawings hung on the walls would give some idea of what he was doing and what he was able to do in cinema theatre construction. He had been interested to hear of the great improvements which had taken place in cinema theatres in America. In 1914 reports from America were to the effect that, taking theatre for theatre, we were at least equal to America in buildings of this kind. But war restrictions had made it impossible to develop until recently; and even now the cost was almost prohibitive. So that during the last seven years, while America had been making enormous strides, we had been practically at a standstill. When the cost of building had come down to something approaching a reasonable figure, when Labour troubles and other difficulties—such as the Entertainment Tax, for instance—had been removed, he felt sure we should catch up to America. Some of the theatres already designed and approaching completion would equal any of the American theatres. He hoped the theatre which was approaching completion in Brighton

would be one of them. If it was not, he could only blame Mr. Atkinson, for it would be entirely his fault.

Major R. GRIERSON, in seconding the vote of thanks, said he thought of Mr. Atkinson in 1913, when he designed the picture house in Princes Street, Edinburgh. Owing to the restrictions on luxury building, we had been unable to show the Americans what we could do. They came over here to study our picture houses, and saw the one in Edinburgh. We had retaliated by going to America and studying theirs, and now we were giving them a reply in the form of the picture house by Mr. Atkinson at Brighton, which would open in July. He did not think there would be any doubt that again England would lead the way, thanks to Mr. Atkinson's efforts.

MR. WALTER BAYES, who has executed three large panels for the Brighton Theatre for Mr. Atkinson, said he felt strongly that the tremendous development of the picture theatre should, in justice, bring to the painter a certain return in relation with the architect. The picture theatre had robbed the painter even of the very name of his productions. "Picture" no longer meant a painting, it meant "the movies." Formerly, when buildings were con-

structed of stone, the architect was a kind of compound engineer and sculptor: now, when buildings consisted of steel and concrete, and the stone work was more abstract than it used to be, it seemed that the architect might be more of a compound of the painter and the engineer. Hence in this more abstract field of design, the art of the painter, which was essentially a more abstract art than that of the sculptor, might find another opening. He did not think that the art of the painter was dead. For the present "the movies" had cut out the painter completely; but the human mind was so constituted that no sooner was it gluttoned with what it thought it most desired than it recoiled in the opposite direction. At first, the picture which did not move appeared to be of no interest: but now that we had nothing else but moving pictures, people would long to see a picture that would keep still! (Laughter.)

Mr. MAX CLARKE [F.] said that his early professional life had been spent entirely in designing theatres and he had had a great deal to do with them since. He did not observe that Mr. Atkinson had differentiated between a theatre and a picture-house. A great many of the pictures shown on the screen seemed to be theatres, not picture-houses, for most of them incorporated a stage, which was useless in a picture-house. Perhaps Mr. Atkinson would tell them whether they were designed as picture-houses or as theatres. He gathered from Mr. Atkinson that a picture should not be projected more than 100 feet. If that were so it would have a great influence on the design of theatres to accommodate from three to four thousand people. The question of the projection of pictures from the rear had been discussed recently, and he had been told that a very good picture could be projected at a distance of 10 feet. Mr. Atkinson's description of the building having an operator's room between the tiers was interesting. Such a position would have distinct advantages, but it would be difficult to construct to comply with the London County Council's requirements as regards means of escape in case of fire. If the door of the operator's room were opened the smoke and fire would be emitted direct into the auditorium, but if circumstances would permit the position would be desirable for many reasons. He noticed in some of the illustrations great crowds of people, but a very small space for the staircases. Unless the staircases were commodious and regular in shape they would be very unpleasant in case of fire. He had the misfortune to make the drawings for the theatre at Exeter, where so many people lost their lives. The catastrophe occurred through someone putting a pay-box on the gallery staircase and blocking up half of it. That was not in the original scheme at all. If there was not ample room inside for the staircase let it be placed outside. As regards decoration, he believed the first attempt at Pompeian decoration was at the Lyceum by Sir Henry Irving; but it cost some six or seven times more than the ordinary decoration.

Mr. F. CHATTERTON [F.] asked what were the

causes which had led to the abandonment of the back projection of pictures on the screen.

Mr. S. P. DERBYSHIRE (Nottingham), speaking as a company director of cinemas, said that the business of the company director was to utilise the eminent, valuable and artistic services of the architects of this country to put up noble buildings, but at the same time it was their business, and their bounden duty to those who had put their money into cinemas, to see that not too much money was spent. His fear was that having seen on the screen photographs of the lovely places Mr. Atkinson had inspected their company directors might be tempted to spend too much money on the buildings.

Mr. HORACE CUBITT [A.] said that what interested him—looking at the subject as an architect—was that the Paper hinged almost entirely on the planning of these buildings, not only in plan, but in section: the decorative part was only incidental. Two things were of the first importance: the screen, and the machine which projected the picture; and the planning of a picture theatre had to have special regard to those points. There was a tendency among the public to think that architects simply came in to put the decoration on, whereas those who knew were aware that the architect's primary duty was to make a building which, in plan and section, suited the purpose; and after that to make it look as attractive and pleasing as it was possible to do.

Major GRIERSON, rising again at the instance of the Chairman, said that he had been connected with the industry for 12 years, and he had seen the theatre industry grow from the penny gaff to the modern theatre, in which such a large amount of capital was invested. Mr. Atkinson asked whether the picture theatre was not ordinary theatre development in design. The only difference was that whereas the stage of the normal theatre dealt with three dimensions—length, breadth and height—the pure picture theatre dealt with two dimensions—width and length. He thought the development would be, to some extent, in using stages, so that, practically, the picture theatre would be designed much on the lines of the ordinary theatre. Another point raised was, that the picture was limited only by the power of vision. That would have to be considered, for the picture theatre of the future would have other considerations. The question of the limiting power of the vision depended on the size of the screen, because if only that was big enough it could be seen a great way off. If a picture was big enough to be seen at 200 feet, it was too large when viewed at 50 feet, so it was really a compromise. He had visited many theatres in the States, and had tested their acoustic properties. In listening to a singer or a speaker from one of the doors remote from the stage, it was always found that the theatre was simply a gramophone trumpet, the speaker at the centre of the stage being the focal point. Mr. Atkinson also referred to the *length* of the screen; technically the expression

should be *width* of the screen. He heartily congratulated Mr. Atkinson on the first line of his paragraph as to projection, in which he said that projection was the crux of picture-theatre planning. The converse was sometimes true, for in the most modern theatre in New York they had put the machine in a high room and tried to throw the picture on to the screen, but they found it impinged on a steel joist, and they had proposed to cut through that joist and so remove the obstruction, but, fortunately for the stability of the building, the designer intervened in time, and the result of the compromise was that the sight lines were considerably out. They had designed for a 3- or 4-inch clearance, and they decided that the sight lines must go. Mr. Atkinson said the length of the projection should not exceed 100 feet: but up to 150 feet had been done, and he should not like it to be considered that 150 feet was the maximum: he had theatres under his control which threw it 180 feet. In America there was shown a picture 100 feet wide and 75 feet high, at 350 feet distance. He was pleased to see we were returning to sanity in the way of having smaller pictures. In 1913 if there was a good picture it simply meant that the end of the theatre was covered with it; but now people realised that a small bright picture was better than a large dimly lighted one, and the smaller ones lent themselves to treatment much better. One speaker said that a translucent screen could be used on a 10-feet throw, but he did not mention the size of the picture. If he meant it should be a 20-feet picture, then we should have to revise the laws of light. With the ordinary lens, distortion appears outside 60° . Light itself was invisible; it was only seen if it was split up or diffused in some way. The quickest way to bring it down to a basis that can be seen was to have a sheet of clear glass, and gradually increase the intensity of the white matter that can be put on it: this would diffuse the light, and the picture would become more and more clear, for the light transmitted would be less and less, because clear glass gave about 90 per cent. transmission. With 60° of transmission and 30 of reflection, a good picture was seen. That was much below the result which could be obtained with an opaque screen, for with a good opaque screen 80 per cent. of light could be sent back. That was why the translucent screen had not been extensively adopted in this country. Another reason was that there was some transmission, and the intensity of the picture would vary according to the part of the house from which it was viewed. At one or two of the modern theatres escalators were being adopted instead of staircases. The type on the Tube railways, however, was too noisy, and too expensive also. There was a cheaper kind in the States. Mr. Atkinson's Paper dealt chiefly with design, but there were excellent points in it in regard to equipment. The average cubic contents of the cinema theatre ran to 200 cubic feet per seat, and 400 cubic feet per hour was reached when it was filled. If no mechanical means of ventilation was provided, that meant that on account of the

body heat of the people the temperature would rise 20° to 30° F., which would be very excessive. He had found that a theatre seating 3,000 people would develop a heat equal to burning 1 cwt. of coal in the auditorium per hour. In two theatres in America there were refrigerating machines of 100 tons capacity; he was there in the late autumn, so did not experience its effect. For 3,000 people, $5\frac{1}{2}$ million cubic feet per hour, weighing 180 tons, were required. It would thus be realised that the ducts must be well planned, and the registers well placed, so as to prevent draught, while giving good ventilation. And for such a theatre a chimney was wanted 30 inches by 30 inches, 80 feet high, so that the 12-inch stack which so frequently figured on architects' drawings was not enough. With the introduction of large quantities of air there came the question of dust too. If in the 3,000-people theatre the weight of air was estimated at one-tenth of 1 per cent. 12 lb. of dirt would be introduced per hour, or 100 lb. per day. Lighting also called for careful consideration, and vast improvements had been made in that since the war. The picture theatre had inverted lighting, and the question of glare had to be considered. From what he had said as to dirt, the question of vacuum cleaning would be seen to be important. It was not unusual to take 1 cwt. of dirt per week from the carpets.

Mr. ATKINSON, in responding, said that the two best men in America on this work were Mr. Lamb, of New York, who had done the Capitol Theatre, and probably 300 or 400 others: and Mr. Crane, of Detroit, who had probably also done some 300. Mr. Grierson had replied on most of the points concerning projection, but he might mention that there was a theatre at Cricklewood, called the Palace Theatre, which had a balcony projection. He agreed with what Mr. Derbyshire had said, because the architect was useless unless he could produce a building which could be worked on an economical basis. The building was a means to an end, and unless it filled its purpose in every respect, it might as well not be built. Planning and decoration were, apparently, looked upon as two separate things: but they were not. The building was a complete unit; it grew by its use, and pleased by its decoration: and if the decoration was too elaborate for the purpose of its directors it was also badly planned and failed of its purpose. He advised cheaper methods of building, and decoration would be none the worse for being cheaper. The architect had yet much to learn in meeting thoroughly businesslike requirements and giving business men what they wanted. In America architects led the public and led business men and told them what they ought to have. Their ideas were so well developed, so broad, so good in outline and so well based upon precedent, that they could often tell the business man, in his own line, what he ought to do, and they were generally right. Briefly, the architect must produce the building which, at the beginning and at the end, fulfilled economically its functions.

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COST OF BUILDING.

AT the request of the Council of the Royal Institute of British Architects the Board has given special attention to the high cost of building and the future prospects of the Building Industry. In the considered opinion of the Board, after examination of the evidence submitted to it, the situation may be summarised as follows :—

1. The cost of building in this country has now, probably, reached its maximum. Employers and operatives have already agreed upon reductions in the rates of wages ; materials are now more readily obtainable than at any time since the War, and the prices thereof are, in many cases, appreciably reduced.

2. The outlook of the Industry for the future is, on the whole, hopeful. The general demoralisation due to War conditions is gradually passing away, and the Board is glad to record instances of support given by the Trade Unions to obtaining better output.

3. Extensive schemes for building are reported by architects to be under consideration. The lower prices should bring such schemes forward for execution, and thereby increase employment in the building and collateral trades.

4. The Board has already expressed its conviction that freedom from the interference of Government Departments is essential to the prosperity of the Building Industry. In its opinion the progress of National Housing has been greatly hindered, the cost increased, and the efficiency and comfort of the houses impaired by the useless and harassing intervention of State officials.

The Board welcomes the fact that the Government have announced their intention of removing the embargo on " luxury " building.

5. The Board views with apprehension the creation and growth of any " rings " and " combines " by manufacturers whose activities have the tendency to keep up prices and limit production. Any combinations which eliminate trade competition are a danger to industry unless the consumer is allowed to benefit by the reductions they are able to effect in the cost of administration and production.

6. Enterprise in building, as in other trades, is adversely affected by shortened credit due to the financial position of the country. The Board earnestly invites the Government to reduce public expenditure, and to repress the ambition of officials to increase the scope and power of their respective departments, with their consequent cost to the nation.

JOHN W. SIMPSON,
President,
The Royal Institute
of British Architects,
Chairman.

J. P. LLOYD,
President,
London District Council National
Federation of Building
Trades Operatives,
Vice-Chairman.

SIR R. ROWAND ANDERSON, LL.D. [F.]. 1834—1921.

SIR R. ROWAND ANDERSON died at Edinburgh on the 1st June, aged eighty-seven. He was elected to the Fellowship of the Royal Institute in 1903, and in 1916, on the nomination of the Institute, was awarded the Royal Gold Medal in recognition of the merit of his work as an architect and of his services to architectural education. The following account of his career appeared in *The Times* of the 3rd inst., under the sub-heading "Rebuilder of Cathedrals":—

Anderson attained a distinguished position in his art comparatively early in life, and that without any special advantages in the way of birth, connexion, or training. He was born in 1834 at Forres, where his father, Robert Anderson, was a solicitor, and as a young man his first and apparently only training in construction and design was obtained in the ranks of the Royal Engineers when quartered at Edinburgh Castle.* A more serious handicap to his progress would seem to have lain in his comparative inability to express his ideas in drawing, which he never surmounted to the end of his career. Yet we find him, when little over 40 years of age, recognised by the Senate of the University, in connexion with the competition for its new Medical Schools initiated in 1874-5, as "one of the six chief architects of Edinburgh" (Sir A. Grant's "The Story of the University of Edinburgh").

In the meantime Anderson had been able to supplement his R.E. training by a comprehensive tour of study on the Continent. His work up to 1875 was mainly confined to school and church architecture. With the competition for the Edinburgh Medical Schools came his first great opportunity and success. His design was selected from the six submitted, solely on the convenience and excellence of its internal arrangements, though, owing to paucity of funds, much remodelling and compression of the first scheme were found necessary.

Much important work elsewhere had also been falling to the successful architect: the Caledonian Railway's offices, Glasgow (with its extremely fine and original tower), altered before the buildings were completed with great skill and ingenuity to serve as an hotel, 1881-84; Mount Stuart,

* Sir Rowand Anderson, on the occasion of the Presentation of the Royal Gold Medal in 1916, gave the following details of his early professional career:—

"Like some others, I was not brought up to architecture in the recognised way—that is, by means of an apprenticeship—but was articulated to a lawyer in the hope that I would follow a legal career. After four years spent in what to me was most uncongenial work, my parents recognised the inevitable and allowed me to follow the profession of architecture.

"I became a pupil of a teacher of architectural drawing, and entered also the Architectural Section of the School of the Board of Manufactures, the precursor of most of the schools of design in this country. I afterwards left for a year's residence in Italy and France, where I spent my time in measuring and drawing work of the Renaissance and Mediæval periods.

"On returning to Edinburgh I spent some time in several offices, took part in some competitions, gained some and lost others. In 1875, when the new schools were being built under the Education Department, I was invited to enter a limited competition of six. I came out first, and the carrying out of three of the largest schools was entrusted to me."
—JOURNAL R.I.B.A., 24th June 1916, pp. 265-66.

Lord Bute's great mansion on the Island of Bute, about the same date: the Conservative Club, Princes Street, Edinburgh, 1883: the Dome which completes Robert Adam's main façade of Edinburgh University, 1886: and, immediately after, 1886-88, the National Portrait Gallery, in Queen Street, Edinburgh.

In later years Anderson deservedly earned a wide reputation as architect for the restoration of some of the most notable ecclesiastic buildings of Scotland. Dunblane Cathedral, *corvis et bubonibus ereptum*, was, at a cost of £30,000, restored throughout to its wonted use instead of being left to abuse as a picturesque ruin, and that without losing in any degree the added beauty of antiquity, in marked contrast to the treatment of some at least of the English cathedrals. Later came Paisley Abbey, Culross Abbey, and Dunfermline Abbey (interior), with equally satisfactory results so far as funds have permitted the works to be carried. Another series of works which, though smaller, are well worth attention are the monuments erected to Anderson's design—that in Parliament Square, Edinburgh, opposite the west door of St. Giles's Cathedral, to the Duke of Buccleuch, and within the cathedral those to Montrose and Argyll.

His position in Scottish architecture was recognised in the invitation to him by the Government to submit a design along with other selected architects from England and Ireland for the Imperial Institute in 1887, and again for the Queen Victoria Memorial in 1901. He was also one of seven nominated by the Royal Institute of British Architects in 1904 to submit designs for the extension of the British Museum. On the accession of King Edward, he was further honoured by being selected to carry out considerable alterations at Balmoral Castle.

When seeking to appraise the quality as architecture of Sir Rowand Anderson's works two characteristics of the man and his method must be borne in mind—the one, his own deficiency as a draughtsman, the other, the quite unusual variety of styles which he employed. The personal note which, in the result, characterises all his works—whether the style be early Italian Renaissance, as in the Medical Schools and the Conservative Club; French Gothic, as in the Portrait Gallery; François Premier, in the Caledonian Railway buildings; Norman, early or late Gothic, as in his various churches; or Scottish domestic, as in his houses—is that of largeness and nobility of treatment, studied proportion in mass, combined with refinement and elegance in detail. His planning, in like manner, is direct, simple, balanced: throughout the work is that of the head rather than the heart.

His life was not free from storms. Having in 1876 been elected an Associate of the Royal Scottish Academy, and being passed over in subsequent elections to full membership, he resigned in 1883, but in 1896 he was re-elected as an honorary member. He received a knighthood from King Edward at the Coronation in 1902.—*The Times*, 3rd June, 1921

A notice of Sir Rowand Anderson which omits all reference to his services in the cause of architectural education is very inadequate. How valuable to the profession his efforts have been in this behalf may be gauged from results which are now matters of history. In the course of his reply to the Presidential Address at the Presentation of the Royal Gold Medal in 1916, Sir Rowand briefly dealt with the inception and progress of the system of training he advocated:—

"You have been good enough to include my services to architectural education as one of the qualifications for my receiving this Gold Medal. I acknowledge most gratefully your reference to this. I began to take an interest in architectural education in 1892. South Kensington up to that time had the entire control of art education, but the education they gave never seemed to produce any result beneficial to the architectural student, and it is not difficult to see why this was so. The system of payment by results poisoned the whole thing. The teachers' income rose and fell according to the number of the prize drawings produced by the student. These had to be worked up to a standard of excellence, as drawings, to meet the views of the examiners in London. So it eventually came to pass that the school existed for the benefit of the teacher more than for the taught. The hopelessness of expecting anything to come out of this system of teaching as regards architecture culminated in 1892. A number of architects and others, including myself, with the aid of the Board of Manufactures, then combined to start a school entirely free from the baneful influence of South Kensington. I should here inform you that the Board of Manufactures came into existence about the time of the Union of Scotland and England, and administered some of the money known as the Equivalent Grant for the Advancement of the Arts and Industries of Scotland. In addition to what this Board was able to do for us, a fair amount of money was subscribed by those interested in this new departure. But the scheme was nearly wrecked by the difficulty of getting a Director of sufficient standing and acquirements for such a salary as we could afford. So, to prevent the collapse of this promising movement, I was asked, and undertook, to act as Honorary Director. I gave as much time as I could possibly spare to what has always been to me interesting work. With the assistance of one or two paid teachers a start was made. From the very first the scheme caught on. It gradually became recognised by the student as the best means of getting an education to supplement what he was acquiring as a pupil or apprentice in a private office.

"Another important feature in our teaching was the organising of a scheme for obtaining accurate records of buildings erected previous to the eighteenth century. This was called a National Art Survey. It was a very ambitious scheme, but it worked out all right. Two of the best draughtsmen were selected annually, and to enable them to devote their entire time to the work they were paid small salaries, and in addition an allowance for travelling and incidental expenses. All the drawings made by them became the property of the school. . . . There are now something like two thousand sheets, forming, I should say, the finest collection in this country. It contains, in addition to the surveys of the buildings, a large collection of drawings and details of early plaster work, wall panellings, fireplaces, and a most interesting collection of old furniture to be found in buildings still inhabited. The result of all this has been most stimulating. I never knew a more enthusiastic or industrious set of students. The work they produced was of a very high standard of excellence, and some of them secured many of the coveted prizes which you offer here to competitors from all quarters. On leaving the school the students have always been greatly sought after as assistants. They are scattered all over Britain and its Overseas Dominions, and from letters I have often received they all attribute their success to the sound practical education they had received."

The National Art Survey Drawings above referred

to are now in course of publication, Part I. (reviewed elsewhere in this issue by Mr. P. Leslie Waterhouse) and Part II, having been produced under the editorship of Sir Rowand Anderson, Dr. Thomas Ross, and Mr. W. T. Oldrieve.

Mr. Ernest Newton, C.B.E., R.A., in the above-mentioned Presidential Address, paid the following tribute to Sir Rowand Anderson's architectural achievements:—"The characteristic quality of his work is its evident integrity, each building being thought out for its special purpose with a simplicity and directness of conception which dominates the whole design, the beauty of any particular motif or the careful study of its detail never being allowed undue prominence, each work being eloquent of the conscientious study of the requirements and purposes of the building and of his knowledge of and sympathy with the various crafts employed. It is not too much to say that his work and teaching have not only influenced large numbers of architects now in practice, but that many of the building firms in Scotland owe their capacity for fine craftsmanship and selection of material to his work and guidance."

A complete list of Sir Rowand's works, comprising public buildings, churches, church halls, schools, mansions and memorials, was given in the JOURNAL for 24th June 1916.

Sir Rowand Anderson was the first President of the Scottish Institute of Architects, a body formed in 1916 to incorporate the various architectural societies in order "to combine their efforts for the general advancement of architecture and for the promotion of the æsthetic, scientific and practical efficiency of the profession." For many years he had an estate at Tangiers, and used to spend a part of the winter there. His experience of the country and its inhabitants made him a determined opponent of the French annexation of Morocco. As a result of his travels in Italy, he published a book on "The Mediaeval Architecture of the Middle Ages." He was also the author of a folio of "Examples of the Municipal, Commercial, and Street Architecture of France and Italy," published in 1878.

There was a large and representative attendance of mourners at the funeral service, which took place at St. James's Episcopal Church, Edinburgh. The pall-bearers were Sir Alfred Ewing, Principal of the University of Edinburgh, Sir J. Lawton Wingate, President of the Royal Scottish Academy, Mr. W. T. Oldrieve [F.], representing the R.I.B.A., and Mr. A. N. Paterson, A.R.S.A. [F.], President of the Institute of Scottish Architects. Others present were Sir John Bunnet, A.R.A., R.S.A. [F.], Sir Robert Lorimer, A.R.A., A.R.S.A. [F.], Sir George M. Paul, Deputy Keeper of the Signet, Sir John R. Findlay, Sir Colin G. Maerac, Sir Henry Cook, representing the Royal Company of Archers, the King's Body Guard for Scotland, and representatives of various other bodies.

PROFESSORSHIP AND PUBLIC RECOGNITION.

By H. BARTLE COX [A.], Ancien Elève. Atelier Laloux, Paris.

IN England, architects often complain of public indifference, but in France, the profession enjoys more public recognition because of its more logical organisation for the training of architects. Centralisation in education, as in commerce, has many drawbacks, yet remains the best of all imperfect systems. Regional architecture, for all its charms, was merely a happy result of isolation, and is unlikely to retain its individuality in the future. French architectural education aims rather at encouraging personal effort than at imposing individual opinion. The Ecole des Beaux-Arts is not a teaching institution in the English sense, but a central focus for the schools. A progressive series of *programmes* (subjects) is proposed by a man who has made a special study of the object and method of setting a subject. The different *ateliers* (schools) all send in *projets* (designs) for the same programme, whether elementary or advanced: these are publicly exhibited after being judged by a large representative jury,* and awards made accordingly. His place in a *concours* (competition) is a great lesson to the student.

The French believe that architectural education is a special science not to be picked up in offices nor necessarily understood by brilliant men, since a successful architect may be unfitted by temperament to organise educational courses.

At the Ecole des Beaux-Arts the architect entrusted with the setting of programmes is called the Professor of the Theory of Architecture. This responsible position is now held by M. Victor A. Blavette, Grand Prix de Rome (1879), Architect to the Louvre. He succeeded Julien Guadet, the much esteemed author of the important work: *Eléments et Théorie de l'Architecture* (*Cours professé à l'Ecole Nationale et Spéciale des Beaux-Arts*), the best educational treatise on architecture in any language. From conversations with M. Blavette and with M. Jules Godefroy (Member of the Jury, Ecole des Beaux-Arts), I drew the following conclusions with regard to the setting of programmes:—

- (1) In principle, they should be mainly theoretical.
- (2) They should aim at developing artistic imagination.
- (3) Their object is to train architects rather than builders.

Nevertheless, architectural education has to be adapted to at least three categories of students:—Elementary, Intermediate, Advanced. All must pass through the elementary stage, a few become advanced, the majority remain intermediate.

Programmes for elementary students should tend to educate them in the first principles of composition, the use of the orders, in the appreciation of proportion and the rendering of effect. Scientific construction can scarcely yet be expected. The students' imagination should not be hampered by petty considerations of a commonplace nature. The aim in this category is essentially artistic and theoretical.

Advanced students, in addition to submitting solutions for special programmes dealing exclusively with construction, are expected to have some practical experience, to have worked in offices, and to have studied stereotomy and other building sciences. Thus equipped they will be capable of tackling programmes of a character calculated to stimulate the higher faculties for big decorative schemes. This class of programme, again, is more particularly of a theoretical nature, and the student should be left perfectly free in the choice of style. Special archaeological programmes are set with the direct aim of preparing the student for restoration work. Here it may be observed that the "Ecole" stands for scholarly modern interpretation of traditional principles; that it encourages style or character, but not the imitation of styles. Hence, a national style is in constant process of development.

Students in the intermediate class largely outnumber the others. The majority, especially since the war, cannot afford the time and money for the complete course leading up to the Grand Prix de Rome: consequently the programmes for this class have to be more practical, more scientific and more adapted to the commonplace requirements of everyday life. The greater number of students have to leave when in the 2nd Class (or after having done one or two first-class *projets*) in order to make a position in life. To cater for this class is a necessity, but somewhat upsets the progressive theory of the Ecole training leading up to the "Diploma," yet it is gaining ground every day. Nevertheless it is essential that the professor responsible for setting the programmes should know how to frame them so as to bring out artistic interpretations of practical problems.

The whole question of Architectural Education consists in the drawing up of Programmes. The Professor himself must have a clear idea of the solution of the subject proposed, and should be sure of the practicability of the imagined scheme. While allowing considerable freedom to the student, he should suggest the artistic character of the building and hint at the required accommodation, avoiding impossible dimensions. In judging the results submitted, care is taken to award in strict accordance with the aim of the programme. If the *projet* is a *Rendu* (careful study) it must be effectively rendered; if a *Projet de Construction* it must be scientifically worked out; but if the problem consists in rapidly setting down imaginative ideas for a large composition the *projets* will not be judged from a prosy practical point of view.

The average Englishman prides himself on being

* An interesting article could be written on the functioning of the "jury" at the Ecole des Beaux-Arts. It is a highly organised affair for thoroughness in judging and shows *collective* (National) tendency rather than *individual* (Personal) opinion. The jury numbers about 25 architects of note, and never less than 15 are present. H. B. C.

practical, but this savours of laziness or of a preference for 5 per cent. before fine architecture. The practical fellow has been termed "A man with one eye and a bag of tools." Napoleon said: "C'est l'imagination qui gouverne le genre humain." In architecture, as in military tactics, we may profitably inspire from our friends across the Channel. In this connection it is instructive to read Monsieur Godefroy's article, "*Une Heureuse Initiative*" in the *Bulletin de la Société des Architectes Diplômés par le Gouvernement* for May 1st, 1921. He states that the Professor of Theory recently set for the advanced students an *esquisse-esquisse* (comprehensive rough draft design) for an *Ecole Normale d'Education physique*, and that the Minister for War asked the Director of the "Ecole" to inform him of the *projets* placed first. The sub-director thereupon suggested that officers interested in the competition should visit the exhibition, when a delegation of the jury would explain the reasons which guided them in placing the *projets* in order of merit. Twenty-five officers, mostly ranking as colonels, visited the exhibition and expressed their astonishment at what the students were able to do in a single day of "12 hours" without preliminary study of the subject. General Pénelon said that in the future when a building for military purposes was contemplated an appeal should be made for the ideas of the students. M. Godefroy suggests that other Ministries should be approached in the same way.

The article, it will be seen, makes a very practical suggestion for increasing the architect's prestige in the public eye. Technically, it enables the uninitiated to see what capable work well-trained students can do (overnight, as it were) in the matter of composing a vast scheme, provided the programme set is well drawn up. In actual practice the programme is made by the architect himself after consultation with the client. If the conditions for a public competition are properly drafted the competitors will not need to ask many "Questions," and the assessor's time will be saved. Students cannot be expected to be familiar with the exact accommodation desirable for every kind of building, hence the responsibility that falls upon the Professor of Theory.

The *esquisse-esquisse* is particularly French in method, and generally perplexes foreigners. It is eminently practical, yet essentially theoretical, but must be regarded merely as a form of study. Some brilliant but idle students are inclined to rest on their oars, content with dazzling the eyes of the layman, but the development of a faculty regarded by all serious students as a necessity should not be lessened on this account. What better method could be devised for aiding rapidity in composition? True, this is not enough in itself, but it is a preliminary acquirement of necessity to the purist and a highly practical accomplishment for the business-like artist, which will prove of the utmost value in impressing clients.

Is such skilful brilliancy widespread among our British students? If not, suggestions for the culti-

vation of this facility of expression should not be disregarded. Its possession would largely help to dissipate the superstition of public indifference.

The great principle of the Ecole training, the most logically organised method in the world, is the Setting and Reading of programmes. The student learns that a station should not be made to look like an hotel, and the professor learns not to ask for an hotel if he wants a station. Our President, Mr. John W. Simpson, pointed this out very clearly in his Address to Students last January, when discussing the question of public competitions. It is, of all considerations, the most important both for Assessors and Competitors. A "School" frankly academic provides theoretical grounding for the practitioner.

The mere reading of a series of programmes set for students at the Ecole des Beaux-Arts is an education in itself. For instance, a monument might in appearance be either funereal or triumphal, or both, but merely to ask for a monument to the dead would leave the student in the dark as to how it will be judged; besides, the reading of the programme would be of no educational value artistically. The drawing up of instructive programmes is an artistic science worthy of our deepest consideration, and for this I would suggest for the benefit of British architectural education:—

- (1) A greater Centralisation of our teaching bodies.
- (2) The nomination of a Professor of Theory.
- (3) A representative jury of all the leading professors.

Such an extension of our efforts would lead to more vigorous and more National results.

The "Professor," a practising architect who has made a special study of this particular form of instruction, should know in detail the artistic and scientific requirements of all the subjects proposed, such as the usual stock-in-trade of commemorative monuments, town halls, theatres, museums, &c., and of town planning: but, for modern purposes, as even he cannot be expected to be familiar with every kind of building from slaughter-houses to libraries and synagogues to lunatic asylums, it is his concern to find them out before setting the subject. For this he has a civic right to ask information from administrative bodies, private companies, corporations, associations, &c. The British authorities, if courteously approached, would be not less obliging than the French. Thus drawn up, the programmes would form valuable documents for architects, and the students' *projets* valuable suggestions for the public. The authorities not being slow to recognise their own interests, encouragement would follow, and architects' efforts, less isolated, would become better known and more effectively patronised, public indifference would vanish and the status of the profession be thereby enhanced. Effective Professorship is the only road to public recognition.

OFFICIAL ARCHITECTURE.

THE Council have directed the publication of the following extracts from a Report submitted by the Official Architecture Committee,* dated 17th February 1915. Although not adopted by the Council as regards the findings of the Committee, the Report contains information useful to members collected in the course of the enquiry. Any member desirous of inspecting the original Report can do so on application to the Secretary.

The Council take this opportunity of endorsing the following words used by the President at the General Meeting on 9th April 1921:—"The official architects themselves are in many cases members of this Institute, and as such they have all the privileges, the protection, and all the affectionate support which this Institute can give them, provided always that they themselves walk within the perfectly clearly laid down lines of professional morality."

Extracts from the Report of the Official Architecture Committee (1915).

APPENDIX A.—*Extract from Report of the Select Committee on Estimates, 25th July, 1912, H.M. Office of Works.*

"VOTE 5 (MISCELLANEOUS LEGAL BUILDINGS) —PERCENTAGE OF COST OF STAFF TO WORKS.

4. (Q. 1534.) The opinion is sometimes advanced in the Press, and elsewhere, that it would conduce to economy if the Department employed outside Architects instead of having a permanent staff of Architects belonging to the office. Your Committee considered the point, and at their request a return was put in showing the allocation of work in the Architect staff and the percentage of cost. (App. Nos. 7 and 8.) The figures show that the percentage is only 4·01 for the permanent staff, while the usual remuneration of an Architect is 5 per cent. A variety of services is also included for which Architects are entitled to charge additional fees, and a very large amount of work is done in 'maintenance' of buildings all over the world. All this is covered by the 4·01 per cent. already mentioned. For works of importance competitive designs are invited, and the work is given to the successful competitor. (Q. 2036.)

Your Committee have not, however, had sufficient time to inquire as closely as they would have wished into the organisation of the Architects' Department, and recommend this to the consideration of the Treasury."

APPENDIX B.—*Extract from Report of the Select Committee on Estimates, 25th July, 1912, H.M. Office of Works.*

"APPENDIX NO. 7.—*Papers handed in by Mr. E. H. Bright.*
RETURN SHOWING PERCENTAGE COST OF ARCHITECTURAL STAFF TO WORKS.

	General		Labour Exchanges.		Diplomatic	
	£	Per cent	£	Per cent.	£	Per cent
1900-1	540,089	—	—	—	27,102	—
	16,850	3·12	—	—	3,550	13·10
1901-2	625,347	—	—	—	32,392	—
	17,000	2·75	—	—	3,600	11·14
1902-3	743,126	—	—	—	36,745	—
	19,500	2·62	—	—	3,670	10·00
1903-4	750,871	—	—	—	52,659	—
	23,600	3·14	—	—	3,650	7·00
1904-5	775,352	—	—	—	46,467	—
	21,000	3·10	—	—	3,150	6·77
1905-6	683,310	—	—	—	81,994	—
	23,800	3·77	—	—	3,310	4·00
1906-7	807,808	—	—	—	84,367	—
	25,750	3·18	—	—	3,900	4·62
1907-8	876,971	—	—	—	57,851	—
	77,000	3·08	—	—	3,750	6·50
1908-9	904,139	—	—	—	73,534	—
	27,250	3·00	—	—	4,150	5·51

* The Committee was appointed by the Council of the Institute in 1912.

1909-10	£835,347	—	£30,114	—	£90,035	—
	27,100	3·24	3,850	12·75	4,050	4·5
1910-11	1,062,302	—	71,700	—	94,000	—
	30,050	2·83	4,750	6·76	4,300	4·57
	8,604,962	—	101,814	—	677,146	—
	263,900	3·08	8,600	8·45	41,090	6·07

£	£
8,604,962	263,900
101,814	8,600
677,146	41,090
9,383,922	313,590

The italic figures give the cost of the staff.

Add to this for cost of Establishment charges, rent, stationery, pensions, etc., 20 per cent. (an outside estimate), and the percentage is 4·01, as against the usual remuneration of an Architect of 5 per cent.

The Clerks of Works' wages, the Quantity Surveyors' fees and travelling expenses are a separate charge in the case of outside Architects, and have, therefore, not been included in this Return.

The Architects of the Office of Works have, however, to perform services for which outside Architects are entitled to charge additional fees; amongst these services may be mentioned:—

1. The inspection of sites and properties, negotiations for the purchase or leasing thereof: surveys: negotiations with adjoining owners

2. Preparation of schemes, Acts of Parliament, examination of Bills before Parliament affecting Government rights, and many other services for which there is nothing to show by way of expenditure.

3. Conduct of Arbitrations, attendance thereat, or at other processes of law.

4. The supervision of all works of 'Maintenance,' amounting to nearly £300,000, in all parts of the world.

The Quantity Surveyors are paid according to an agreed scale."

APPENDIX D.—*Extract from the Report of the Committee of Inquiry into the Architects' and Surveyors' and Engineering Divisions of H.M. Office of Works, London, 1914.*

EMPLOYMENT OF OUTSIDE ARCHITECTS.

"43. As a matter affecting the organisation of the Architects, it may be convenient to deal here with the important question of the extent to which the new architectural work of the Board could with advantage be entrusted to Architects in private practice. We have received in full the view, on the one side, of the Board's Secretary and the Principal Architect and his colleagues, and, on the other, of Sir Aston Webb and Mr. Blomfield, and have considered the matter from the standpoints, first, of architectural results, and, secondly, of cost and convenience of administration.

44. The two distinguished outside Architects referred to naturally approached the subject from the first point of view, their main argument being that the State could not obtain the best architecture from an official staff owing to the pressure of administrative business in a Government Department. It must be admitted that there is force in this criticism. We were assured by Sir Aston Webb and Mr. Blomfield that an Architect in private practice designs all the architectural details of his work with his own hand, and that he loses considerably in skill unless he is constantly engaged in the actual work of design. The Architects of the Office of Works spend only a comparatively small part of their official time in original designing, and their tendency is to rely too much on the work of the draughtsmen, though it is fair to say that they do in fact keep closely in touch with that work at all stages. We have commented elsewhere on the undue subordination of designing to administrative work, and have urged the necessity for an improvement in this respect. At the same time we think it is only due to the official staff to state that we are convinced that it includes men of marked ability in designing, and is in fact, on the whole, producing good architectural work, in spite of the disadvantageous circumstances to which we

have alluded elsewhere. We do not feel satisfied, therefore, that, even from the purely artistic point of view, the State cannot obtain good results from the employment of an official architectural staff.

45. From the administrative and financial point of view, the arguments for employing such a staff appear to us stronger. We have considered the return furnished to the Select Committee on Estimates (Appendix No. 7 to House of Commons No. 277 of 1912) showing the cost of the Board's architectural staff as a percentage of the annual expenditure by that staff for the ten years ended 1910-11. We believe that the correct figure for the ten years ended 1912-13 is about 5 per cent. (instead of the 4 per cent. given in the Return), which will, however, be decreased if our recommendations are adopted. But as the work performed by the Board's Architects includes many services for which special fees would be charged in private practice, and a mass of minor works and alterations for which fees would be payable in addition to the usual 5 per cent., we think that, even at present, the cost of their salaries compares favourably with the corresponding outside charges.

46. A comparison in this form is, however, somewhat academic. It is not, we understand, disputed that for the routine work of the Department an official staff is required. The question is whether outside Architects should not be employed on the more important new works. These are just the cases, however, where the employment of an official staff is cheapest—the cost, as a percentage of the expenditure on the work, falling in typical cases as low as 2 per cent. Further, as the Office of Works undertakes the maintenance and alteration of buildings in its charge it is in many cases of advantage to the Department to have within its own walls the Architects and Draughtsmen associated with the original design and erection of the buildings. It seems clear, therefore, that the employment of an official staff is in many cases more convenient to the Department and involves a smaller payment for architectural services.

47. But, further, we think that the experience of the official Architects must often enable them to produce more suitable and cheaper buildings. They have an intimate knowledge of the requirements of Government Departments, and are specialists in certain types of buildings. It is important to remember that nearly one-half of the new work undertaken by the Office of Works is in connection with Postal and Telegraph buildings, which are of a highly specialised character, unfamiliar to the outside Architect, and can, allowing for varieties of site, be treated by the official Architect on more or less uniform lines, which must tend to economy of public money.

48. There is, however, a certain class of buildings with regard to which the artistic point of view must obviously predominate, *i.e.*, broadly speaking, public buildings of the first class in London, Edinburgh, and Dublin. For works of this sort it is, we think, rightly demanded by public opinion that the best talent of the whole architectural profession should be at the disposal of the Government. Except in the case of Post Offices, however, which form a special class, such buildings have, in fact, as a rule been entrusted to outside Architects, and should, we think, continue to be so entrusted. But at the same time, we do not think it advisable to lay down any rigid rule, such as that all buildings costing more than a given sum should be assigned to outside Architects. We think it is desirable that the official Architects should be allowed to do some work of the highest class, if they are considered to be capable of it, because we fear that their total exclusion from such work would discourage them from keeping abreast with current ideas, and so react unfavourably on the general work of Department.

49. The decision in each case should, in our opinion, depend on circumstances, such as the nature and position of the building, the talent at the disposal of the Office, and the amount of work in hand."

London, 1914.

CORRESPONDENCE.

The Annual Report.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR.—Mr. Fraser's criticism of the proceedings at the Annual Meeting are severe and in some instances not well founded. The innovation by which the Chairmen of Committees dealt with their own portions of the report was by no means designed to prevent the asking of questions: the idea was that it presented a ready means of furnishing answers to them. In fact, the President pointed this out. Whether or not the discussion of the report occupied a fair share of the time may be a matter of opinion, but at any rate it takes up three columns of small type in the JOURNAL. It appeared to me that when the meeting terminated at 10 o'clock, it was because no one wished to continue the discussion, and, as far as one could judge from conversation with a good many members present, the innovation was well received.

There can be no question of the legality of printing the report before the meeting. It has to be sent to all members and to be printed in the JOURNAL. To do the printing of 21 pages twice over would involve unjustifiable expense.

The reasons for the decline in the number of Licentiates is fairly obvious. Admission to this class was closed in 1912: the youngest member was then over 30 and the average age considerably more. With no new recruits the wastage through death or retirement from practice is great and ever greater. Last year saw the last opportunity for Licentiates to join the class of Fellows, and 105 of them took advantage of it, 73 were lost by death or resignation.

The apparent discrepancies in the matter of grants are due to the fact that the Report deals with 12 months to April, 1921, while the financial year is for the year ending December 31st, 1920.

In the matter of appointment of members to serve on various bodies, I can only say that in some cases reports have appeared and in others no report was required. For instance, I was appointed to the Education Committee of University College, and there has been nothing in that connection that needed reporting. Mr. Fraser appears to have missed some matters that have been dealt with from time to time in the JOURNAL.

The matter of Conditions of Contract is fully worthy of note. At the moment of issuing the Report there was nothing to be said beyond the bare statement that appeared. The Conference has met since then and it appears to promise good results.

The deputation to the Ministry of Health, whose names appear on page 313, was appointed before the Scale of Charges Sub-committee came into existence, but Mr. Welch was appointed later to represent that Committee. Since the appointment there has been one interview at the Ministry of Health and he was present. At that interview it was asked that one member should attend again to confirm the draft and Mr. Gibson performed this duty. The original deputa-

tion already contained the Chairman and Hon. Secretary of the Practice Committee, of which the Scale of Charges Committee is a sub-committee.

In the matter of Unification and Registration your own footnote on page 428 shows where the particulars of the constitution of the Unification Committee may be found, and the matter seems to be quite clear. A report begins on the same page as Mr. Fraser's letter and renders further comment unnecessary. The Annual Report was in the hands of members on 23rd April and the Unification Committee met on 12th May, and it is therefore clear that the meeting could not be referred to in the Annual Report.

Attendance.—Any committee that wishes to publish the attendances of its members in the JOURNAL can do so. Those of the Council and Standing Committee appeared on 7th May. The Competition Committee is often summoned at very short notice to settle matters that have to be dealt with quickly, and this may explain the attendances. It is generally regarded as a very efficient committee.

It is suggested that the Standing Committee should publish accounts of their work from time to time, and this is a suggestion that may be commended to them. But I think that Mr. Fraser has himself been a member of a Standing Committee and I do not know that he has taken any steps to bring this about.

The Architects' Defence Committee is a matter of importance which Mr. Gammell is dealing with very faithfully in the present number of the JOURNAL.

I am sorry to occupy so much of your space but very little more need be said. Personally I do not agree with publishing parts of the KALENDAR in separate form: the present arrangement is more convenient and the increased income would surely be a very small matter. The advertisement contract has been very much in the mind of the Finance Committee, but a change that will bring us in a substantially larger guaranteed income even than that which Mr. Fraser suggests has now been made.

The matter of arrears of subscription is a statement of hard fact by professional accountants: there is no camouflage about it. It is actually the case that arrears have been paid up in increasing amounts.

The matter of Fire Insurance is important: it was reviewed by the Finance Committee recently, but I will call the attention of the Committee to it again.—Yours faithfully, ARTHUR KEEN (*Hon. Secretary*).

MR. HORACE CUBITT, Hon. Secretary of the Practice Committee, writes:—"Mr. Fraser states that 'in the Report of the Practice Standing Committee anxious members are informed that there has been a special increase in the Scale of Housing Fees with regard to Road and Sewer Work.' This statement is entirely at variance with the Report, in which this matter was referred to as follows:—'As a result of several complaints by members, the Committee have recommended the Council to endeavour to obtain an increase in the scale of fees payable for road and sewer

work, but no success in this direction has yet been achieved.'"

The Proposed Professional Defence Union.

17, St. Peter's Street, Bedford, 6 June 1921.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—With reference to Mr. P. M. Fraser's letter in the JOURNAL of 28th May last, and because I believe that Mr. Fraser's obvious want of knowledge as to what is happening in the case of the Architects' Defence Union—mentioned in his letter under the head of "Report of Competitions Committee" at the foot of the left-hand column of page 428—may be shared by others, and that an explanation might be of service to others besides himself who are interested in this matter, I would claim the hospitality of your columns to make the following statement:—

(a) Mr. Fraser is under a misapprehension in thinking that sheer apathy was the reason for the scheme of 1913-14 not going through. The reason was the war. It is unnecessary to take up the always limited space in the JOURNAL by enumerating the facts in detail, otherwise I could give proof of this statement.

(b) The proposal has been resuscitated, and at the present moment is well on the way for final submission to the general body, but as obviously many matters of practical and economic detail have to be gone into and thoroughly thrashed out, it is not possible to produce a scheme as the conjurer does the rabbit from up his sleeve.

Having given these two items of explanation, I trust that Mr. Fraser and possibly others will accept the assurance that the proposal for the Defence Union is very far from being dead and forgotten, and I, for one, honestly hope and believe that this organisation, long overdue and imperatively needed by the profession, will at no distant date be brought into being.—Yours faithfully, K. GAMMELL.

P.S.—I must say, in fairness to those responsible for giving publicity in the JOURNAL and the technical press generally of the progress of our Institute business, that I cannot quite understand Mr. Fraser's justification for his criticism in this particular matter.—K. G.

Unification and Registration Committee.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—We view with some alarm the resolution of the above Committee that all architects should be allowed to become members of the R.I.B.A. Up to the present the Committee make no recommendation dealing with the second subject referred to them, and if the proposal is to form part of a Registration Bill we see no reason to object to it, for we are strong advocates for a Registration Bill that would be of real use to the profession, and we urge the R.I.B.A. to prepare a Bill of that nature forthwith. Unless this be done, we suggest that members of the R.I.B.A., and particularly new Associates, should carefully watch developments; that they should regard with caution, if not suspicion, any argument based on the plea of

first accepting the above proposal with a view to the possible framing of a Registration Bill at a later date. Until we obtain our Registration Act the basis for admittance to our ranks should be examination, and for their own sakes, as well as for the position of the R.I.B.A. as a learned and artistic society, we ask our members to resist any tampering with our constitution.

(Signed) W. S. CROSS, *V.P.*
H. D. SEARLES-WOOD, *V.P.* (elect).
GEORGE HUBBARD [*F.*].
SYDNEY PERKS [*F.*].
CHAS. B. FLOCKTON [*F.*].
DIGBY L. SOLOMON [*A.*].

London County Hall.

70A, Basinghall Street, E.C.2, 1 June 1921.

To the Editor, JOURNAL R.I.B.A.—

SIR,—In Mr. Maurice E. Webb's account of the visit to the above, in your issue of 28th May, I note that he speaks of the river front of the building as the northern front. In making this error he is by no means alone; and quite recently I read in a London newspaper a reference to the "south" end of Westminster Bridge, which, as a matter of fact, lies very nearly east and west.

I think the river front of the County Hall will be found to face a trifle north of west. On the other hand, owing to the tortuous course pursued by the Thames in its passage through London, a building standing on the same bank, but fronting Limehouse Reach, will face almost due east.—Yours faithfully,

J. CHARLES BOURNE, *Licentiate*.

REVIEWS.

SCOTTISH ARCHITECTURE.

Examples of Scottish Architecture, from the 12th to the 17th century. A series of reproductions from the National Art Survey Drawings, published by a Joint Committee of the Board of Trustees for the National Galleries of Scotland and the Institute of Scottish Architects. Edited by Sir R. Rowand Anderson, LL.D., H.R.S.A.; Thomas Ross, LL.D.; W. T. Oldrieve, H.R.S.A. Published by George Waterston and Sons, Ltd., Edinburgh.

The Collection of Drawings from which these reproductions are to be made consists of about seven hundred sheets of plans, measured elevations and detailed drawings relating to one hundred and forty buildings. From this material the Committee hope to make selections and to issue quarterly parts of about fifteen drawings each for the next five years.

The nucleus of the Collection dates from about 1866, when Mr. (afterwards Sir) R. Rowand Anderson (whose lamented death has recently been announced) induced some enthusiastic young architects to co-operate with him in preparing sketches and measured drawings of the best examples of Scottish architecture. Generous assistance was extended to the movement later by the Scottish School of Applied Art, and by the Town Council of Edinburgh: and bursaries and scholarships were

instituted to encourage the measuring and drawing of ancient buildings.

The enthusiasm of Sir R. Rowand Anderson never abated, and it is mainly through his generosity that the publication of a selection of these drawings has now become practicable. The volumes will form an invaluable record of buildings of interest, both historical and architectural, many of which are disused and are rapidly decaying, and some of which have already been demolished.

In the first volume the first building, Amisfield Tower, near Dumfries (A.D. 1600), is illustrated by six plates of drawings and two excellent photographs. In beginning with this the editors are setting a high standard, for the design is one of rare beauty and character. A simple plan 31 feet square outside, with walls 5 feet thick, and five storeys of one room inside—this was by no means easy material for a designer to work upon. But the old Scottish architect had a stout heart, and was never afraid of good broad spaces, and above the foursquare walls the tower blossoms out into a delightfully picturesque group of chimney-stacks, gables and turrets.

Two other buildings are illustrated:—Earlshall, Fifeshire, a fine example of sixteenth-century castellated house, and Elcho Castle on the Tay, near Perth. Elcho Castle is described as an unaltered house, dating from about the first half of the sixteenth century, planned for defence. The walls are 6 feet thick, and are well provided with shot-holes all round, on the ground floor. In the entrance porch is a good example of the old open wrought-iron gate, or "yett," which served for additional defence.

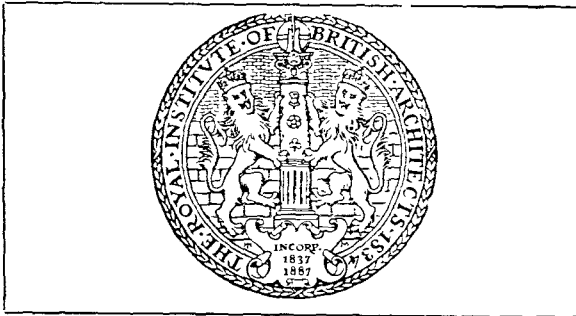
At present only this first quarterly part has been published, but it enables us to look forward with confidence to the remainder. The series will present a faithful record of the development of Scottish tradition in building, and no one who is interested in this subject, or in Scottish history, can afford to miss it.

P. L. WATERHOUSE [*F.*].

As we go to press there comes to hand from the publishers Part II. of the above work, comprising reproductions of drawings and photographs, together with descriptive letterpress, of Park o' Luce, Wigtownshire (Plates 19-21), Midhope Castle, Linlithgowshire (Plates 22-26), Fountainhall, Haddingtonshire (Plates 27-31), and Ford House, Midlothian (Pl. 32-34).—ED.

Colour Decoration of Façades.

Messrs. Thomas Parsons and Sons have published in book form illustrations of the three premiated and five other designs which were submitted in a competition which they inaugurated last year for a coloured design for the front of their business premises in Oxford Street. The assessors were Sir Reginald Blomfield, Sir Edwin Lutyens, Sir David Murray, Sir William Richmond and Mr. Frank Brangwyn. Some 700 drawings were sent in, and the assessors in their remarks commented on the general excellence of the designs. Sir Reginald Blomfield congratulated Messrs. Parsons on their enterprise in initiating the competition. It is interesting to have a published record in colour of the winning designs.—R. D.



9 CONDUIT STREET, REGENT STREET, W., 11th June 1921.

CHRONICLE.

R.I.B.A. Conference at Liverpool.

In pursuance of the policy announced in the Council's annual report that conferences of the Royal Institute shall be held annually in the great provincial centres, it has been decided to hold the first of these events at Liverpool on the 24th and 25th June. The arrangements have been made by the Council of the Liverpool Architectural Society in consultation with a Committee of Presidents of the Allied Societies, and the Institute is deeply indebted to those members of the Liverpool Society who have given so generously of their time and energies in order to ensure the success of the function. The underlying idea of these meetings is to bring London and provincial architects into closer and more effective touch with one another, to enable provincial members of the Institute, whom distance debar from attending meetings at headquarters, to discuss with their Metropolitan brethren the professional problems of the moment, and to bring home to the general public the organic unity of the architectural profession. Opportunity will be afforded under agreeable circumstances for the interchange of ideas, for comparison of methods, and for the statement of experiences under new and changing conditions. It is felt that, taken full advantage of, such opportunities cannot fail to assist the general advancement of architecture and promote the efficiency and the well-being of its exponents. An interesting programme has been arranged (see page 472) and it is hoped that all members whose engagements will permit will attend the conference and take this opportunity of becoming acquainted with their colleagues of Liverpool and other parts of the country. Members intending to be present are requested to send in their names to the Secretary R.I.B.A.

The Annual Elections : Scrutineers' Reports.

The following are the reports of the scrutineers appointed to direct the election of the Council and Standing Committees for the Session 1921-22 :—

To the Chairman of the General Business Meeting, Monday, 6th June 1921.—

The Scrutineers appointed to count the votes for the election of the Council and Standing Committees for the Ses-

sion 1921-22 beg to report that 993 envelopes were received—385 from Fellows, 602 from Associates, and 6 from Hon. Associates. The result of the election is as follows :—

PRESIDENT.—Paul Waterhouse (unopposed).

PAST PRESIDENTS.—Sir Reginald Blomfield, R.A.; John William Simpson (unopposed).

VICE-PRESIDENTS.—*Elected*: E. Guy Dawber, 699; A. W. S. Cross, 616; Prof. S. D. Adshad, 602; H. D. Searles-Wood, 425.—*Not Elected*: H. T. Buckland, 417; H. P. Burke Downing, 404; George Hubbard, 348.

936 papers were received, of which 11 were invalid.

HONORARY SECRETARY.—Arthur Keen (unopposed).

MEMBERS OF COUNCIL.—*Elected*: H. V. Lanchester, 768 votes; Harry Barnes, 760; Sir E. Lutyens, 753; Walter Cave, 714; G. Gilbert Scott, 699; J. S. Gibson, 696; Curtis Green, 695; T. Geoffrey Lucas, 673; E. Stanley Hall, 641; Maurice Webb, 617; C. Stanley Peach, 588; Sir Bani-ter Fletcher, 584; H. Austen Hall, 579; Alan E. Munby, 564; Sydney Perks, 562; Vincent Harris, 557; W. E. Riley, 542; H. V. Ashley, 487.—*Not Elected*: Max Clarke, 486; G. Topham Forrest, 468; H. M. Fletcher, 444; Wm. Woodward, 438; A. J. Davis, 435; Theodore Fyfe, 406; W. Gillbee Scott, 384; Lovett Gill, 379; H. W. Wills, 351; Delissa Joseph, 273.

936 papers were received, of which 26 were invalid.

ASSOCIATE-MEMBERS OF COUNCIL.—*Elected*: Stanley H. Hamp, 584; Harold C. Bradshaw, 482; Michael T. Waterhouse, 476; J. Alan Slater, 473; J. Stockdale Harrison, 463; John Hubert Worthington, 454.—*Not Elected*: Arthur W. Sheppard, 409; Leonard H. Bucknell, 387; Digby L. Solomon, 369; Herbert A. Welch, 342; Lionel B. Budden, 241; Guy D. G. Hake, 210.

936 papers were received, of which 22 were invalid.

REPRESENTATIVE OF THE ARCHITECTURAL ASSOCIATION. William Godfrey Newton.

REPRESENTATIVES OF ALLIED SOCIETIES (all unopposed).—Herbert Tudor Buckland (Birmingham); Charles Burrows Flockton (Sheffield); Gilbert Wilson Fraser (Liverpool); John Alfred Gotch (Northamptonshire); Arthur William Hennings (Manchester); Llewellyn Kitchen (York); Thomas Ridley Milburn (Newcastle); William Thomas Oldrieve (Edinburgh); William Brown White (Glasgow).

HONORARY AUDITORS.—John Hudson; Arthur William Sheppard (unopposed).

Scrutineers.—C. H. Brodie, *Chairman*; Henry Lovegrove, Francis Hooper, Mordaunt H. C. Doll, I. B. Pite, Ernest G. Allen, J. L. Dixon-Spaul, J. L. Seaton Dahl, Charles Woodward, Hyllon B. Elkington, R. Stephen Aylm, Mountford Pigott, P. W. Hubbard, F. T. W. Goldsmith, Henry A. Saul, Herbert Shepherd, G. G. Wornum.

ART STANDING COMMITTEE : FELLOWS.—*Elected*: Ernest Newton, 784 votes; Sir Edwin L. Lutyens, 722; Prof. F. M. Simpson, 587; Prof. S. D. Adshad, 562; Halsey Ricardo, 560; Prof. A. E. Richardson, 540; Walter Cave, 538; J. J. Joass, 506; Maurice E. Webb, 471; Herbert Baker, 458.—*Not Elected*: H. P. Burke Downing, 452; Walter Tapper, 450; W. A. Forsyth, 440; Edward P. Warren, 352; Alfred Cox, 281; F. R. Horns, 229; J. D. Coleridge, 184; Basil Oliver, 180; Harry Surr, 123.

ASSOCIATES (all unopposed).—William Robert Davidge, Cyril Arthur Farey, Percy Wells Lovell, Michael Theodore Waterhouse, William Arthur Webb, Arthur Welford.

921 papers were received, of which 32 were invalid.

Scrutineers.—C. H. Brodie, *Chairman*; L. K. Hett, R. Topham.

LITERATURE STANDING COMMITTEE : FELLOWS.—*Elected*: William Curtis Green, 706 votes; Charles Harrison Townsend, 678; Hubert Christian Corlette, 673; Percy Leslie Waterhouse, 659; Henry Heathcote Statham, 649; Martin Shaw Briggs, 632; Arthur Stratton, 613; Edwin Stanley Hall, 601; William Henry Ward, 585; Louis Ambler, 548.—*Not Elected*: Herbert Austen Hall, 539; Henry Martineau Fletcher, 536; Stanley Churchill Ramsey, 468; Arthur Hamilton Moberly, 368.

ASSOCIATES.—*Elected*: J. Alan Slater, 669 votes; J. H. Worthington, 656; H. Chalton Bradshaw, 641;

W. H. Ansell, 554; L. B. Budden, 540; A. T. Edwards, 520.—*Not Elected*: Miss E. M. Charles, 487; H. Bagenal, 372; C. E. Sayer, 353; H. J. Birnstring, 134.

929 papers were received, of which 20 were invalid.

Scrutineers.—C. H. Brodie, *Chairman*; J. J. S. Naylor, Herbert Shepherd, T. Frank Green, J. McLaren Ross.

PRACTICE STANDING COMMITTEE: FELLOWS.—*Elected*: Arthur Keen, 719 votes; A. W. S. Cross, 654; John Slater, 601; Sydney Perks, 598; C. Stanley Peach, 575; Max Clarke, 561; H. V. Ashley, 508; G. Topham Forrest, 485; G. H. Lovegrove, 426; W. Henry White, 416.—*Not Elected*: A. O. Collard, 398; W. Campbell Jones, 389; W. G. Hunt, 370; Delissa Joseph, 329; Herbert A. Satchell, 329; F. Chatterton, 299; H. E. Mathews, 264; Charles Nicholas, 262; S. J. Tatchell, 246.

ASSOCIATES.—*Elected*: Horace Cubitt, 631 votes; H. V. M. Emerson, 505; H. A. Welch, 489; J. D. Scott, 456; Digby L. Solomon, 436; G. Scott Cockrill, 412.—*Not Elected*: Charles McLachlan, 402; C. E. Hutchinson, 368; K. Gammell, 344; W. H. Hamlyn, 245; P. W. Hawkins, 227; H. H. Golding, 191; F. R. Jelley, 141.

940 papers were received, of which 31 were invalid.

Scrutineers.—C. H. Brodie, *Chairman*; Henry A. Saul, A. E. Bartlett, G. C. Wilson, R. W. Pite, F. B. Nightingale.

SCIENCE STANDING COMMITTEE: FELLOWS.—*Elected*: H. D. Searles-Wood, 781 votes; A. E. Munby, 773; H. P. Adams, 761; Prof. R. E. Smith, 692; Raymond Unwin, 617; F. G. F. Hooper, 600; R. Stephen Ayling, 594; W. E. Vernon Crompton, 594; G. F. N. Clay, 587; S. B. Russell, 582.—*Not Elected*: Herbert Shepherd, 543; H. A. Saul, 460; J. F. Franck, 378.

ASSOCIATES.—*Elected*: G. L. Elkington, 649 votes; R. J. Angel, 628; J. H. Markham, 616; H. W. Burrows, 608; C. A. Daubney, 603; Charles Woodward, 586.—*Not Elected*: N. O. Searle, 578; T. F. H. White, 526.

904 papers were received, of which 20 were invalid.

Scrutineers.—C. H. Brodie, *Chairman*; I. B. Pite, J. L. Seaton Dahl, A. E. Bullock, S. J. H. Prynne.

Mr. Michael Waterhouse's Election to the Council.

The President, at the General Meeting last Monday, in declaring the Officers, Members of the Council, and Members of the Standing Committees duly elected in accordance with the Scrutineers' Reports, observed that there was one name on the list of elections to which he should like to make allusion—viz., that of Mr. Michael Waterhouse. The fact that he was elected to the Council for the first time coincidentally with the advent of his father to the Presidentship must be extremely grateful to his father's heart. (Applause.) Members congratulated him sincerely, and hoped that he, in his turn, would attain to that great eminence which his father had already achieved.

Notes from the Minutes of the Council Meeting, 23rd May 1921.

The Scale of Fees for Housing Schemes.—The draft agreement with the Ministry of Health was approved and a vote of thanks was passed in favour of Mr. James S. Gibson and the other members of the deputation.

Report of the Unification and Registration Committee. The resolutions passed by the Unification and Registration Committee on 12th May were approved and a Sub-Committee was appointed to enter into negotiation with the Council of the Society of Architects.

Competitions.—The Competitions for the Hagley War Memorial and the Salisbury War Memorial were vetoed.

Grants.—The following annual grants were made:—

	£
Architectural Association—	
Ordinary Grant	100
Second Instalment of Grant of £500 to	
Endowment Fund	125
Architects' Benevolent Society	100
Atmospheric Corrosion Research	10

Report of the Official Architecture Committee.—The report was approved and ordered to be printed in the JOURNAL.

Industrial Council for the Building Industry.—Mr. James S. Gibson was appointed to represent the Architectural Profession on the Administrative Committee of the Industrial Council.

The Telephone "Buff Book."

The Council, acting on the recommendation of the Practice Standing Committee, request Members and Licentiates who publish their names in the "Buff Book" *Telephone Directory* to have them printed in the smallest type (similar to that adopted by solicitors and the medical profession).

Captain Sankey's Steel-Testing Machine.

At the conclusion of the ordinary business before the meeting last Monday a demonstration, arranged by the Science Standing Committee, was given of a machine for rapidly testing steel and other metals, the demonstrator being Captain H. Riall Sankey, R.E. (ret.), the patentee of the machine. Mr. E. Fiander Etchells [*Hon. A.*], President of the Concrete Institute, was present with other experts, and several of the London District Surveyors. It is usual to specify the tensile test for exhibiting the properties of steel and other metals employed by mechanical engineers, and such test is relied on in cases of dispute. A reliable tensile test, however, involves considerable expense in machining, and a testing machine of a pulling capacity of not less than thirty tons is necessary. Such machines are costly, and require an expert to work them, and only large works are able to afford the outlay; the small user must have recourse to testing works, involving considerable expense and delay. The result is that tensile tests are only made when definitely specified as part of the contract, or in case of dispute, the purchaser relying on the statements of the suppliers of the material. There is consequently a field in workshop practice for a simple test which can be rapidly carried out, and which, even if it has not the high order of accuracy of the tensile test, can nevertheless be relied on, and requires only a small amount of material and a test piece of simple form. It is claimed for the machine shown on Monday that it provides a simple and inexpensive, but at the same time absolutely reliable shop test of steel, brass and bronze. The test pieces are $\frac{3}{8}$ inch diameter and 4 inches long; they are inexpensive to make, and can often be got out of even a finished piece of work without injury to the piece. The test itself takes about a minute, and can be performed by an intelligent labourer. The machine is fully

described and its uses detailed in "Pamphlet No. 355" issued by the makers, Messrs. C. F. Casella and Co., Ltd., 49 and 50, Parliament Street, Westminster. After Captain Sankey's demonstration, Mr. Etchells thoroughly overhauled the machine for the benefit of the meeting, explaining its parts and special features and the principle of its action. An unsuitable steel for reinforced concrete work, he said, would be discovered at once on being put into the machine. Anyone with such a machine in his office could know at once what steel he was using and whether or not it ought to be rejected. "One advantage," Mr. Etchells pointed out, "is its portability. Very often if you wait on a job until you get your steel tested by institutions a week's time may be lost on the work, and people will say you are holding the job up. On the other hand, if you don't have the steel tested you may be letting the job down." At the end of the demonstration a very cordial vote of thanks was passed to Captain Sankey for his demonstration, "and especially," added the President, "for his clear and lucid explanation of his useful invention." Mr. Francis Hooper expressed the thanks of the meeting for the delightful innovation introduced by the Science Committee for the benefit of members, and suggested that the Council should authorise the purchase of one of these machines and have it fixed up at the Institute for the convenience of London members. Probably, he said, the Allied Societies would do the same for their members, and so spread the utility of the machine throughout the country.

On Building a House.

The fifth of the series of six Public Lectures initiated and arranged by the Literature Standing Committee was delivered by Mr. H. M. Fletcher, M.A. Cantab. [F.], Chairman of the Committee, on the 2nd June, Mr. Ernest Newton, C.B.E., R.A. [F.], presiding. Mr. Fletcher entitled his discourse "Building a House; or What an Architect Does," and said that he was going to talk undiluted "shop," but reminded his hearers that the lectures were not addressed to architects. Quoting the passage in Shakespeare beginning:—

"When we mean to build,

We first survey the plot, then draw the model."

(*Henry IV.* 2nd Part. I. 3).

the lecturer said that the passage implied one sound moral: "Consult your architect from the very beginning, even before you have bought your plot. If you have a choice of plots call him in. His eye is trained to see what is not yet there, and it disheartens him to have to make the best of a site bristling with difficulties if he knows that earlier in the day he could have helped you to choose one that has all the amenities you want." The lecturer quoted the preliminary instruction which, he said, every house-building architect must have met from time to time during his practice: "I don't care what the house looks like so long as it's comfortable inside." Oddly enough, the man who gave utterance to it was often keen about old architecture, studied it, hunted it out on his travels, photo-

graphed it, sketched it; but between old architecture and modern building he saw no connection, and the architect might have a hard time in bridging the gulf for him. The designer needed not to worry overmuch about expressing the character of his client in the building: every conversation he had with him would register itself somewhere. Neither need he worry about expressing his own individuality, for if he had it, it would express itself; and if he had it not, he would do very little good. There was indeed this risk in the expression of an over-forceful individuality, that the outcome would be a house in which only the designer could live: and one could picture a sensitive person inhabiting such a house and coming to feel how the dominant personality of the architect gradually closed round him with a firmer and firmer grasp until, in terror of losing his own soul, he would take refuge in a speculating builder's villa. A certain impersonality, such as we found in the work of a tradition or a school, made for permanence: a wilfully emphasised individualism, often captivating for the moment, wore badly in the long run. Discussing the preparation of the working drawings, the lecturer assured the audience that the staircase would not be forgotten. "I am not going to argue about it but will simply state flatly that the architect never has, never does, and never will forget the staircase. On the other hand, his sufferings from that joke are indescribable. Like Job's war-horse, he smelleth it afar off: unlike him, he never saith 'Ha! ha!' in the midst thereof. It is reckoned that every architect has to listen to it 3,000 times during his life: at the 3,001st repetition he dies."—There was not a more fascinating occupation in the world than the gradual building up of a design from its elements. The constant variety of conditions made the constant interest. Speaking generally, analysis preceded synthesis. Requirements were classified in order of importance—necessities first, then desirables, and unimportant things left to be fitted in; then, as a cross classification, a grouping of rooms together and apart according to aspect and convenience of service. The lecturer went through the multitudinous things that the architect had to keep in mind when getting out his working drawings, all of them involving a generous expenditure of tracing paper and indiarubber and brain-stuff. He showed where the quantity surveyor came in—a wonderful man, master of a peculiar style which in its breathlessness and the number of subjects it packed into one clause was super-legal, almost Teutonic. Speaking of the architect's qualifications, the lecturer quoted Vitruvius: "He must be talented and willing to learn, for neither unlearned talent nor untalented learning will make a perfect artist: he must be educated in literature, a skilled draughtsman, a profound geometrician, not ignorant of optics, well up in arithmetic, with a good knowledge of history, a diligent student of philosophy, a thorough musician, not ignorant of medicine, familiar with judicial decisions and skilled in astrology and the movements of the heavens." Having dealt with the supervision of

the building in progress, with suggested variations from plan, and the mysteries of technique peculiar to certain materials, the lecturer mentioned the mischief often caused by friends of the owner suggesting modifications in the plan—irresponsible humourists who look at a half-finished building and make some idiotic comment upon it. It was surprising how seriously many people without experience of building would take such witticisms, how eagerly they would suggest alterations in consequence, and how long a time the architect might have to spend in wearing down the effect of a momentary remark. Much subtler was the temptation offered by other buildings, whether actually seen or studied in the voluptuous pages of our modern folio publications. There was hardly a more fatal course, or one more ruinous to good design, than to go through the volumes of *Country Life*, saying: "I want that door, that gable, that window, that chimney stack." In general, those things were not what the client liked, but those things in their surroundings. It was not features that made a fine design, but the proper combination of features and their due subordination to the whole. For a house of moderate size, it would be truer to say that the ruthless elimination of features was the essential. Take such perfectly domestic yet dignified buildings as the houses attributed to Wren in the Close at Salisbury, or the Deanery of St. Paul's, or the plain stucco houses built round about 1800 in many of our country towns. They had walls pierced with window and door openings, eaves, roof, chimney stacks—very often no features at all—just the beggarly elements, but those elements so well placed and shaped, so carefully disposed in relation to each other and to the whole, that there was no suggestion of baldness, merely a decent reticence, and the houses pre-eminently domestic and livable. It was not an easy form of design, and required more care and skill than that in which want of thought was disguised behind gables, finials, festoons, features tossed about in picturesque confusion; but, said the lecturer with emphasis, it repaid. The comparative poverty of the coming years would have its bright side if it erased the word "pretty" from the architectural dictionary.

The CHAIRMAN, in proposing a vote of thanks, said that everyone must feel, after the very excellent and detailed Paper Mr. Fletcher had given them, that all he had to do now was to go away and build a house himself. There were, however, certain secrets which Mr. Fletcher had kept back, and he (the chairman) could only assure his hearers that without the possession of those secrets they would find it very difficult to build a house without the aid of an architect. He asked to be forgiven for saying it was a mistake to suppose that only women were practical, especially with regard to kitchen and offices, linen-cupboards, &c.; he assured the lady members of the audience that architects really knew about these things, and that they gave them a great deal of consideration. The present cost of buildings, unfortunately, made it impossible to do

much more than talk about houses; we managed wages differently now from what they did 150 years ago. He had been reading in one of the old city records that in 1766 the Master of the Company of Carpenters having received a paper signed by a number of journeymen asking for their wages to be advanced to 12s. a week, the Company resolved that every master should pay them according to what they earned or deserved, and no more.

On Some Fashions in Architecture

The sixth and final lecture of the series—like its predecessors, an extremely entertaining one—was delivered on the 10th inst. by Mr. H. S. Goodhart-Rendel, who took for his subject "Some Fashions in Architecture." Members will recall Mr. Goodhart-Rendel's Paper on "Contemporary British Architecture and its Immediate Ancestry,"* which excited such interest in the profession a few months ago. The chairman at this last lecture was the Right Hon. the Earl Ferrers, who, as Mr. Walter Knight Shirley, before coming into the title, was a practising architect and a Licentiate of the Institute. The lecture will be published *in extenso* later: room in the present issue can only be found for the opening and concluding sentences. The lecturer said he proposed just to open the doors of a few old wardrobes, so that he and his hearers might look together at the architectural bustles and crinolines which they contained, being careful not to deride them overmuch in case they should come in again in the next few years. An exact definition of "fashion" and "style" he would not attempt. Fashions in art were imposed from without; styles were developed from within. This distinction, however, was too simple to be altogether true. Fashions not infrequently developed into styles—styles proved so ephemeral that they might almost be dismissed as fashions. Doubtless there was a logical demarcation between the two, but he could not find it. In default of this touchstone, he would, in the main, follow the practice of critics and call those developments of architecture which he happened to like "styles," and those which he happened to dislike "fashions." In concluding, the lecturer asked: "Are we bold enough to anticipate a favourable verdict from the future upon our Dutch bricks, our artificially rough tiles, our clouded and stippled paintwork, our woodwork of oak or of pine excoriated and blotched with wire brushes and limewash? If we are not, we must see to it that, when all these charms have become nauseating, there is something else in our buildings to justify us in the eyes of our sons. And that something will certainly not consist in fidelity to any contemporary fashion in architecture."

The President's Bereavement.

Members of the Institute will regret to learn that the President is in mourning for his mother, Mrs. Thomas Simpson, who passed away last week at her residence at Brighton, in the ninety-first year of her

* Published in the JOURNAL for 5th March 1921.

age. The venerable lady had borne well her burden of years, retaining until quite lately full possession of her faculties both mental and physical. The funeral took place at Brighton on Wednesday, the 8th instant. It is interesting to mention that Mrs. Simpson was the widow of an architect, and of her four sons two are architects—Mr. John W. Simpson and Mr. Gilbert Simpson, the latter succeeding his father as architect to the Brighton Educational Authority and other bodies. Mr. Thomas Simpson, the father, was the successor of his uncle, a very well-known architect in his day. The other two sons are doctors, one the senior consulting surgeon to the Sheffield Royal Hospital, the other in practice at Hove.

North Wales Heroes' Memorial Competition, Bangor.

The President, Mr. John W. Simpson, has nominated Mr. Gilbert Scott, A.R.A. [*F.*], as assessor in the above competition in conjunction with Lord Plymouth.

Rome Scholarship in Architecture and Henry Jarvis Studentship.

The Faculty of Architecture of the British School at Rome have awarded the Rome Scholarship in Architecture 1921, offered by the Commissioners for the Exhibition of 1851, to Mr. S. Rowland Pierce; and the Henry Jarvis Studentship, offered by the Royal Institute, to Mr. Edward William Armstrong [*A.*]. The designs executed in the Final Competition for the awards will be on view in the Institute galleries until the 18th June daily from 10 a.m. to 8 p.m.; Saturdays, 10 a.m. to 5 p.m.

Mr. S. Rowland Pierce, the Rome Scholar, is an original member of the Architectural Association Atelier and holds an appointment on the staff of the Architectural Association. He was born at St. Leonards in 1896 and received his first technical training at the Hastings School of Science and Art. The Rome Scholarship in Architecture, of the value of £250 a year and tenable for three years at the British School at Rome, is open to British Students under 30 years of age.

Mr. Edward William Armstrong, the Jarvis Student, is 25 years of age and was born at Fielding, New Zealand. After service in France with the New Zealand Expeditionary Force he entered the Architectural Association with a New Zealand Government Scholarship and subsequently qualified for the Associateship of the Royal Institute. The Jarvis Studentship is awarded on the result of the Rome Scholarship examination to the Student or Associate of the R.I.B.A. who passes next in order of merit to the winner of the Rome Scholarship.

The Building Public and Architects.

In a tastefully produced little pamphlet entitled *Forethought: Information for those interested in Building*, the Ontario Association of Architects, the Provincial Section of the Royal Architectural Institute of Canada, explains to the building public when and why they require the services of an architect, and what

should be expected of him when employed. The information is given under the heads: "Why an Architect is required," "How an Architect Works," "The Selection of an Architect," and the following advice is offered the client:—

Trust your architect and value his opinions. If you cannot do this, don't choose him.

Make your requirements and resources clear. He isn't a mind reader and he needs to know these things in order to serve you well.

Discuss the question of his fee with him. It avoids misunderstandings.

Remember, that no first plan was ever the best one. It is easier to alter plans than to change bricks and mortar. Time spent in getting your plans right is well spent.

No architect can get good work out of a poor mechanic, or make a dishonest man honest. It is not always wise to accept lowest tenders. Your architect's advice is useful in selecting your contractor.

"Value for value the world over"; don't expect to get more than you pay for.

New Methods and Materials.

The following is a further list of materials and new methods of construction approved by the Ministry of Health and published in their organ, *Housing*:—

"*Empire*" *Bungalow or Cottage* (*B. R. Parkes*, 17, *Fleet Street, London, E.C.4*).—A system of timber construction, the framework of which is in accordance with the Ministry's Standard Specification for Cottages of Timber Construction, but the timber is mill-wrought, for which an allowance of $\frac{1}{4}$ inch is made on the specified scantlings. The external covering is $\frac{3}{4}$ inch rebated shiplap, covered with cedar shingles. The internal covering is $\frac{3}{4}$ inch rebated shiplap, covered with $\frac{3}{4}$ inch by $1\frac{1}{2}$ inch battens, and lathed and plastered or finished with some other approved covering.

The Bendall Walling System (*R. L. Bendall*, 40, *Richmond Wood Road, Bournemouth*).—The Ministry of Health has now sanctioned that in the construction of houses on this system the walling may be formed of concrete composed of eight parts of aggregate and sand combined to one part of cement.

The Ferro-Concrete Roof Plate Co., Gorvett Avenue, Shiperton-on-Thames.—This is a system of constructing the roofs and walls of one-storey buildings with reinforced concrete plates fixed to timber framing. The roof-covering plates are formed with longitudinal and horizontal cross-ribs, with a thin sheet of concrete between forming the body of the plate. The longitudinal edges are bolted together, the joints being filled with plastic material and covered with an independent concrete capping. The horizontal joints are lapped and bolted together, and are supported on a wood or steel purlin.

The walls are formed in a similar manner to the roof in long slabs the full height of the storey, bolted together, and secured to wood framing. The corners are stiffened by being filled in solid with concrete. The structure is set on a concrete plinth course above the ground level.

The Moler Fireproof Brick and Partition Co., Ltd., Vickers House, Broadway, Westminster, S.W.1.—This is a brick manufactured of diatomaceous earth and clay thoroughly well burned, which can be used for external walling, subject to the bricks for the inner and outer parts of the wall for one-storey buildings being $2\frac{1}{2}$ inch thick with a 2 inch cavity, and for two-storey buildings $3\frac{1}{2}$ inch thick with a 2 inch cavity, the two parts being properly bonded with galvanised wrought iron ties, spaced not less than two to every superficial yard, and the bricks being properly bedded all round in cement mortar. The external face of the wall must be rendered and rough-cast in cement, with two coats, making a total thickness of not less than

$\frac{3}{4}$ inch, and the floor joists of the upper storey carried on a hoop iron bond plate, with proper blocks, fitted as beam, filling between the joists.

Wages in the Building Industry.

The National Wages and Conditions Council for the Building Industry have arrived at the following decision :—

That the wages of craftsmen and labourers be reduced 2d. per hour as and from 16th May.

That the wages of labourers be reduced a further 1d. per hour as and from 1st July.

That this meeting stand adjourned until 31st May, when the difference between the rates of craftsmen and labourers' wages be further considered and decided.

In the interim a Joint Committee of employers and labourers, together with a representative of the National Federation of Building Trade Operatives, meet to enquire into the operation of any reduction of the labourers' wages and the effect such reduction would have on the lower paid districts in order that the minimum shall not fall below an agreed amount.

That both parties meantime endeavour to arrive at a recommendation as regards hours to be considered at the July meeting of the Council.

The term "craftsmen" includes painters.

Suggested Building for the Cambridge Arts Union.

The Times University Correspondent writes that during the last two years there has been a marked increase in the interest taken in the fine arts at Cambridge. The School of Architecture is increasing and has taken a spacious house in Trumpington Street, where two large drawing studios, a library, a lecture-room and two class-rooms for study have been arranged. Here also is being formed a collection of books, casts and models, and sets of lantern slides. Since the Armistice the number of University students taking architecture has steadily increased and has more than doubled in the last year.

But something more is needed. At a place like Cambridge there ought to be a centre for artists and lovers of the arts. The needs of music, the drama, drawing, painting, and sculpture are very inadequately provided for at present. An attempt to supply the absolute necessities for the promotion of these arts has been made by the Cambridge Arts Union. It is hoped in time to provide an adequate building and adequate supervision—a building which will include a theatre to seat 600 persons, and green-rooms; a chamber-concert hall to seat 300 persons (which would also serve for choral and orchestral rehearsals); one or more practice rooms; a combined studio and workshop; a common club-room; a common library (of music, drama, painting, &c.); a committee room and offices. This is an ambitious programme and will probably cost at least £100,000; but the committee estimate that if they could start with a sum of £30,000 they could erect a building to justify the amalgamation or federation of all the University Art, Musical and Dramatic Societies and Clubs, and they think that, in view of the lack of accommodation at Cambridge, the proceeds of letting the theatre and hall would at least suffice to cover the expenses of upkeep.

The Civic Education League.

The Summer School of Civics, organised by the Civic Education League, is to be held this year at Guildford (Surrey) from 30th July to 14th August. The Local Education Authority at Guildford and the Surrey Education Committee are co-operating by placing accommodation at the disposal of the School, which will also have the advice

and assistance of a local Committee. The organisation will be in the hands of the committee responsible for last year's school, with some additions, the chairman being, as formerly, Mr. Alexander Farquharson.

The programme of studies is being extended and enlarged as a result of last year's experience, and will give students opportunities of getting into touch with recent developments in nearly every department of social science. The promotion of good citizenship through every educational means is the central aim of the School; but the attempt will be throughout to relate every branch of social study to this aim. Courses on economics, anthropology, social biology, maternity and child welfare, sociology, civics and social psychology will be among those offered, while practical training in the representation of civics (through public speaking, etc.), and in the regional approach to civics will also be provided. In connection with the latter, plans are being made for a detailed survey of Guildford and its region, especially in their social and economic aspects, both present day and historical.

The courses will be adapted to the needs of training college lecturers, teachers in elementary, secondary, and day continuation schools, social workers (including health workers), lecturers on citizenship and other social topics, organisers, and social students.

Full particulars may be had from the secretary, Miss Margaret Tatten, Leplay House, 65, Belgrave Road, S.W.1.

Victoria and Albert Museum.

On and after Monday, 30th May, the Library, and the Students' Room of the Department of Engraving Illustration and Design (Room 71), will close on Mondays, Thursdays, and Saturdays at 9 p.m. instead of 10 p.m. On Sundays the Museum will be open until 6 p.m., instead of 5.30 p.m., as at present; the closing bell will ring at 5.50 p.m. The hour of closing on weekdays will remain as at present.

COMPETITIONS.

Sutton Coldfield, Hereford, Hagley, Salisbury and Renfrew War Memorials.

Members and Licentiates must not take part in the above Competitions because the Conditions are not in accordance with the published Regulations of the R.I.B.A. for Architectural Competitions.

Rothesay, Queensbury, and Wick War Memorials.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competitions are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment, and in the meantime Members and Licentiates are advised to take no part in the Competitions.

Blackpool War Memorial.

Qasr el 'Aini Hospital and School, Cairo.

Bengal Council Chamber.

North Wales Heroes' Memorial, Bangor.

Wolverhampton War Memorial.

The Conditions and other documents relating to the above Competitions may be consulted in the Library.

Cricket : R.I.B.A. v. A.A.

A cricket match between teams representing the R.I.B.A. and the Architectural Association will take place on the Architectural Association ground at Elstree on Wednesday, 29th June 1921. Mr. W. Curtis Green [F.] will captain the R.I.B.A. Eleven. Members, Licentiates, and Students who are free to play for the Royal Institute are requested to be good enough to send their names as soon as possible to the Secretary, so as to enable Mr. Curtis Green to select the strongest possible side. It will be remembered that in the last of these matches, in the year 1913, the Architectural Association won by 17 runs.

MINUTES. XV.**Special General Meeting—Amendment of By-laws.**

At a Special General Meeting, summoned by the Council under By-law 65, and held Monday, 6th June, 1921, at 8 p.m.—Present: Mr. John W. Simpson, *President*, in the Chair: 42 Fellows (including 15 members of the Council), 19 Associates (including 4 members of the Council), and 5 Licentiates:

The President announced the object of the Meeting, viz., to ask the General Body to authorise the Council to take the requisite steps to obtain the sanction of the Privy Council to such amendment of the by-laws as is necessary to give effect to the resolution of the General Body passed on 28th February, 1921, viz., That the number of members in the Honorary Associate class shall not exceed sixty; that the entrance fees and annual subscriptions of Honorary Associates be abolished, and their privileges of voting in the election of Council and Standing Committees be withdrawn.

On the motion of the President, seconded by Mr. Arthur Keen, Hon. Secretary, Fellows only voting, it was

RESOLVED, unanimously—

1. That the following provision be added to By-law 4: "The number of members in the class of Honorary Associates must not exceed sixty."
2. That clause (c) in By-law 17, which provides for the payment by Honorary Associates of entrance fees and annual subscriptions, be deleted.
3. That the following words be added to By-law 63: "or in the election of Council and Standing Committees."
4. That By-law 16, which provides for the transfer of a Fellow who has retired from practice to the Class of Honorary Associates, be deleted.

The President announced that under Clause 33 of the Charter the Resolutions must be confirmed at a meeting to be held within twenty-eight days, and that the date of such meeting would be announced in the JOURNAL.

The Meeting then terminated.

Business General Meeting.

At the Fifteenth General Meeting (Business) of the Session 1920-21, held Monday, 6th June, 1921, immediately following the above Special Meeting, and similarly constituted, the Minutes of the Meeting held 23rd May, 1921, having been published in the JOURNAL, were taken as read and signed as correct.

The Hon. Secretary announced the decease of Sir Robert Rowand Anderson, LL.D., F.R.S.E., elected Fellow in 1903 and awarded the Royal Gold Medal in 1916, and, having referred to the excellence of his work as an architect and to his services in the cause of architectural education, moved, and it was thereupon

RESOLVED, That the Royal Institute of British Architects do place on record its admiration for the archi-

tectural achievements of its distinguished Fellow the late Sir Robert Rowand Anderson, and its appreciation of his services in the cause of architectural education; that there be entered on the Minutes of the Meeting an expression of the Institute's sorrowful regret at his demise: and that a message be conveyed to the Institute of Scottish Architects sympathising with them in the loss they have sustained.

The following candidates for membership were elected by show of hands:—

AS FELLOWS (6).

BIDLAKE: WILLIAM HENRY, M.A. Cantab. [A. 1888], Birmingham.

HILL: JOSEPH [A. 1913].

JOHNSON: GEORGE ALFRED [A. 1905], Shanghai.

MILLARD: WALTER JOHN NASH [A. 1885].

SIMPSON: CECIL HAMILTON [A. 1909].

SINCLAIR: WILLIAM BRAXTON [A. 1912].

AS ASSOCIATES (19).

BARRY: CARYL ARTHUR RANSOME [S. 1912—*Special War Exemption*].

BENNET: JAMES SPALDING [S. 1920—*Special War Exemption*], Edinburgh.

BIDDULPH-PINCHARD: CHARLES HENRY [Special War Examination].

BRODIE: JAMES [S. 1909—*Special War Exemption*], York.

BURNET: FRANK RUSSELL [S. 1920—*Special War Exemption*], Kilmacoll, N.B.

CHANT: ARTHUR GUY, P.A.S.I. [Special War Examination], Carlisle.

COOPER: FREDERIC ROLAND [S. 1908—*Special War Exemption*], Kettering.

FORBES: ARTHUR B. [Special War Examination], Montreal.

LUNAN: LESLIE GORDON [Special War Examination], Lucknow.

MC CONNELL: LEONARD [Special War Examination].

MC EYERS: HAROLD ERIC [Special War Examination], Montreal, Canada.

MACE: THOMAS HENRY [Special War Examination], Montreal.

MERRILL: ALFRED [Special War Examination].

MILNE: JAMES [S. 1920—*Special War Exemption*], Glasgow.

RAY: ARTHUR GORDON [Special War Examination], Quebec.

TURNBULL: BERNARD WILLIAM [Special War Examination].

WEBB: JOHN ADAMS [S. 1914—*Special War Exemption*], Melton Mowbray.

WEEKES: NORMAN BARNETT, F.S.I. [Special War Examination], Rochdale.

YOUNG: THOMAS PEACH WEIR [S. 1920—*Special War Exemption*], Glasgow.

The Scrutineers' Reports giving the results of the annual elections were read, and the President declared the Officers, Members of Council and Standing Committees duly elected in accordance therewith.

On the motion of the President a Vote of Thanks was passed by acclamation to the Scrutineers for their labours in examining the voting papers and counting the votes.

At the conclusion of the business on the agenda a demonstration of a machine for rapidly testing steel and other metals was given by the patentee, Captain H. Riall Sankey, R.E. (ret.).

The machine and its working were further explained by Mr. E. Flander Etchells [Hon. A.], President of the Concrete Institute.

On the motion of Mr. W. R. Davidge [A.] a vote of thanks was passed by acclamation to Captain Sankey and Mr. Etchells.

The proceedings closed at 10 o'clock.

Berks, Bucks and Oxon Architectural Association.

A Special Meeting of the above newly formed Association was held in the Committee Room, Town Hall, Reading, on Thursday, 2nd June, at 3.15 p.m. The chair was taken by Mr. C. S. Smith, J.P. [F.], Chairman of the Reading Society of Architects, and twenty-seven architects from Berks, Bucks and Oxfordshire were present, including Messrs. W. R. Howell [F.], T. T. Cumming [F.], H. W. Rising [F.], C. B. Wilcocks [F.], H. Hutt [A.], W. J. Freeman [A.], C. S. Kimpton [A.] (Berks), T. Rayson [A.] (Oxon.), R. A. Rix [A.] and A. Cooper (Bucks). The By-laws of the Association were received and confirmed and the following officers elected: President, Mr. E. P. Warren, F.S.A. [F.] (Berks); Vice-Presidents, Mr. C. S. Smith, J.P. [F.] (Berks) and Mr. H. Rogers, M.A. (Oxon); Hon. Treasurer, Mr. T. T. Cumming [F.] (Berks); Hon. Auditor, Mr. R. A. Rix [A.] (Bucks), with Mr. H. Hutt [A.] as Hon. Secretary (Berks). The various branches of the Association nominated their representatives for the Council. The Association resolved that formal application should be made for affiliation with the R.I.B.A. Competitions were arranged open to members and students of the Association for an Association Badge and measured drawings.

**CONFERENCE OF THE ROYAL INSTITUTE OF
BRITISH ARCHITECTS (IN CONJUNCTION
WITH THE LIVERPOOL ARCHITECTURAL
SOCIETY), LIVERPOOL, JUNE 24 AND 25, 1921.**

President: Mr. JOHN W. SIMPSON, P.R.I.B.A.

PROGRAMME.

Thursday, 23rd June.—Members arrive in Liverpool.

Friday, 24th June.

- 10.0 a.m. Official Opening and Reception of Members in the Conference Room (Walker Art Gallery) by the Lord Mayor of Liverpool.
- 10.30 a.m. to 1 p.m. { (a) Paper: "The Unification and Registration of the Architectural Profession," by Mr. John W. Simpson, P.R.I.B.A.
(b) Paper: "Official Architecture," by Mr. Maurice E. Webb, F.R.I.B.A.
(c) Paper: "Propaganda and Publicity," by Professor C. H. Reilly, F.R.I.B.A.
- 2 p.m. Visit to Port Sunlight and Bromborough Pool.
- 7.30 p.m. Banquet at the Midland Adelphi Hotel.

Saturday, 25th June.

- 10 a.m. to 1 p.m. { (a) Paper: "Building Contracts," by Mr. H. D. Searles-Wood, F.R.I.B.A.
(b) Paper: "Architectural Education," by Mr. Lionel Budden, A.R.I.B.A.
(c) Paper: "Present-Day Building Problems," by Mr. T. T. Rees, F.R.I.B.A.
- 2.30 p.m. Visits to the Cathedral, the Cunard Building, etc.
- 4 p.m. Tea, Britannia Café, at the invitation of Messrs. Willink & Trenchard, F.R.I.B.A. Trip up the River arranged by the White Star Steamship Company.

Sunday, 26th June.

- 10.30 a.m. Special Service for the Members of the Conference in the Cathedral and Sermon by the Bishop of Liverpool in the Lady Chapel.

It is hoped that all members whose engagements will permit will attend the conference and take this opportunity of becoming acquainted with their colleagues of Liverpool and other parts of the country. Members intending to be present are requested to send in their names to the Secretary R.I.B.A.

NOTICES.**Election of Members, 15th December 1921.**

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 7th November 1921.

AS FELLOWS.

- BOND, ALEXANDER GODOLPHIN, B.A. Oxon. [A. 1897], 115, Gower Street, London, W.C.1, and 22, Priory Road, West Hampstead, N.W.6.
- DAUBNEY, CHARLES ARCHIBALD, F.S.I. [A. 1900], Godwin Bursar 1902, Bank Chambers, Tower Bridge, S.E.1, and 302, Brownhill Road, Catford, S.E.
- GOURLAY, CHARLES, B.Sc., F.S.A. Scot. [A. 1887], Professor of Architecture, Royal Technical College, Glasgow, and Coniston, Milngavie, near Glasgow.
- HAMP, STANLEY HINGE [A. 1900], 20, Red Lion Square, London, W.C.1, and 6, Edwardes Square, Kensington, W.8.
- SIMPSON, GILBERT MURRAY [A. 1893], 16, Ship Street, Brighton.

Presentation of the Royal Gold Medal.

The SIXTEENTH GENERAL MEETING (ORDINARY) of the Session 1921 will be held Monday, 20th June 1921, at 8.30 p.m., for the following purposes:—

To read the Minutes of the Meeting held 6th June 1921

To present the ROYAL GOLD MEDAL FOR THE PROMOTION OF ARCHITECTURE, conferred by HIS MAJESTY THE KING, to Sir EDWIN LANDSEER LUTYENS, R.A., in recognition of the merit of his work as an architect.

Special General Meeting, 27th June: Amendment of By-laws.

A SPECIAL GENERAL MEETING will be held Monday, 27th June 1921, at 5.30 p.m., to confirm the following Resolutions passed at the Special General Meeting held on the 6th June—viz.:—

- (1) That the following provision be added to By-law 4: "The number of members in the Class of Honorary Associates must not exceed sixty."
- (2) That clause (c) in By-law 17, which provides for the payment by Honorary Associates of entrance fees and annual subscriptions, be deleted.
- (3) That the following words be added to By-law 63: "or in the election of the Council and Standing Committees."
- (4) That By-law 16, which provides for the transfer of a Fellow who has retired from practice to the Class of Honorary Associates, be deleted.

A.R.I.B.A., P.A.S.I., ex-officer, aged 40, desires partnership, or preliminary arrangement with view to partnership, with London architect of repute. Competent to take lead or entire control of quantities, specification, working and detail drawings. Could introduce good clients in due course. Highest references given and required.—For further information apply "Box 315," The Secretary, R.I.B.A., 9, Conduit Street, W.

SHARE of Office available, Bloomsbury District. Suitable for Architect commencing practice.—Apply "Box 661," c/o Secretary R.I.B.A., 9, Conduit Street, W.

A.R.I.B.A. (37), University man (Major), pre-war practice, desires permanent appointment in London, or post as manager, with a view to partnership.—Apply "Box 16," c/o Secretary R.I.B.A., 9, Conduit Street, W.



SIR EDWIN LANDSEER LUTYENS, R.A., F.R.I.B.A.
ROYAL GOLD MEDALLIST 1921



THE ROYAL GOLD MEDAL.

Presentation to Sir EDWIN LUTYENS, R.A. [F.], at the General Meeting,
Monday, 20th June 1921.

ADDRESS BY THE PRESIDENT, MR. JOHN W. SIMPSON, *Membre Corr. de l'Institut de France*.

MY LORDS, LADIES AND GENTLEMEN,—There is no reward so precious to an artist as the approval and admiration of those who practise his own craft. When his art is that of building design this is especially true. The architect's work appeals less directly to popular emotion than does that of the musician, the man of letters, the painter, or the sculptor; it is always by the judgment of his own folk that he tests the merit of his performance, to them that he turns for appreciation and encouragement.

And he does so with a confident assurance. It is due to our brother architects to say that admiration for fine work is never withheld by them. I have said before, and repeat it with pride, that there is no profession so little affected by jealousy, none in which the success of another of their own fraternity is applauded and welcomed with such honest pleasure. The great compensation to men of our strenuous calling, where competition is keen, and honours comparatively rare, is the certain knowledge that those whom they strive with and defeat will be the first to rejoice in their victories and acknowledge their worth. No profession is so united, so loyal to its chiefs, so generously appreciative of the achievements of its members, as that of architecture.

In the case of Sir Edwin Lutyens it is not difficult to understand that we should be proud of him. His genius has brought him into great prominence, and he has carried us all forward with him. We, his brother artists, shine each a little more brightly in his reflected glory. We are grateful to him for the way in which he has demonstrated the supremacy of the art we love. He has helped the public to realise and understand the functions of the architect, and we all benefit by their better knowledge. It was, therefore, natural that the Royal Institute of Architects should agree to recommend Edwin Lutyens to their gracious Patron, the King, as worthy to receive the Royal Gold Medal he gives for the advancement of architecture.

The position of the Royal Institute is unique. No other body of architects in the world has, or ever has had, the privilege of bestowing so great an honour as they. Its members have been entrusted, since the year 1848, with the duty of submitting to the Throne the name of any architect whom by reason of the excellence of his work they deem worthy of especial distinction. Their choice is not limited to members of their own body, nor to men of their own country. Last year it fell upon Charles

Academy of Arts, London. Member of the Royal Institute of France, in testimony of his distinguished merits as an architect."

Her Majesty approved the nomination, and the Medal, executed by Mr. Wyon, was presented to Professor Cockerell on the 20th November 1848.

On the 13th and 20th March 1848, the Council resolved "that the Royal Gold Medal for the following year be awarded to the author of some literary publication connected with Architecture." The recipient was Luigi Canina, the eminent Italian antiquary and historian of Architecture.

The third recipient of the Medal (in 1850) was Sir Charles Barry, and the fourth (in 1851) Professor T. L. Donaldson, who took a prominent part in the foundation of the Institute, and whose letter (dated 8th May 1834) summoning the preliminary meeting "at Mr. Rainy's room, 14, Regent Street," is printed in the historical sketch of the Institute published in the *KALENDAR*. The names of the recipients of the Medal since its foundation will be found in the *KALENDAR*, page 14.

THE BUSINESS SIDE OF ARCHITECTURE.

BY JAMES MILLEP, A.R.S.A. [F.]

Read before the Glasgow Institute of Architects, 29th Nov. 1920

THE subject I have chosen for my Paper is perhaps somewhat an unusual one in our proceedings. Nevertheless, I am sure it will be admitted that the possession of a business faculty or business training is not only desirable but highly essential to the proper conduct of our profession. It is not my intention to deal with the ordinary routine of office work or management, but rather to emphasise the importance of a business training in dealing with the many and varied matters which are encountered in the carrying on of an architectural practice, and in a general way refer to some of the more important subjects deserving special attention from the strictly business point of view.

I need hardly say it is not possible to lay down or formulate any code of business methods. Hard and fast rules cannot be applied in this way, or formulated like a mathematical principle, to be applied to any particular circumstance which might arise. The profession of architecture is largely a personal one. The personal element is essential in preserving that distinctive individuality which should mark the architect's creation. It is equally essential in building up a practice and thereafter sustaining it.

In our profession there are two comprehensive branches of study which must be mastered to at least some degree of proficiency if a successful career is to be attained. These are, first, the artistic or æsthetic, and second, the technical or constructional training. To these I would add a third—viz., a business or com-

mercial training. With regard to æsthetic and technical training, the importance of these cannot be overrated. Without a knowledge of these subjects the best business man in the world would hardly be entitled to call himself an architect. Unfortunately ours is not a "close" profession, with the result that individuals who have had no special training whatever in our art have been bold enough to assume the title of architect, and carry on a practice, greatly to the detriment of the status of our profession.

I have a vivid recollection during my apprenticeship days of having to pass morning and evening a shop the sign-board of which bore the words "John Blank, Family Grocer and Wine Merchant," and on a plate on the door jamb, "John Blank, Architect and Surveyor." If my memory serves me right, John was more at home with his tea, sugar and spirits than with his architecture. At the same time there is something wrong that invasions of this kind should be permitted into our profession, and the sooner something is done to protect the public against such depredations, the better it will be for the public and for the profession itself. The method by which this end is to be accomplished does not come within the province of my address, but the matter is one deserving serious consideration by the various bodies representing architecture.

Now, while the æsthetic and technical sides of our profession receive the attention which is due to these all-important branches of an architect's education, in our Art Schools and Colleges, and also in the many text books available, little or nothing is done in the way of business training. It is assumed that the young architect can get along and pick up by degrees such business methods as he may discover for himself. The most successful architect would naturally be he who was equally master of the three subjects I have mentioned, but such a combination in one individual is unfortunately rare and we frequently find that where the art faculty is largely developed, the business faculty is lacking, or, by reversing the formula, where the business faculty is highly developed, the artistic is lacking.

At no previous period in the history of our profession is a knowledge of business or commercial methods more essential than now. The architect of the present day who tries to run his business without due study and consideration to the business or commercial side of it is certainly placing himself at a very great disadvantage. It is merely expressing a platitude to say that the principles which determine the successful conduct of business undertakings, are common to practically all employments. It has been said by one of the greatest business men of our time that the qualities of imagination, insight and of decision were no less necessary in the production of a business genius than was imagination in the making of a painter, than insight in the making of a statesman, than the power of prompt decision and the daring to seize opportunities were necessary in the making of a great military commander.

Perhaps it is necessary to turn to the United States

of America to find the fullest development of that combination in architecture and commerce to which I refer. However highly we may value our own modern architectural productions, there can be no question that America has produced some of the finest examples of modern commercial architecture, and the names of certain outstanding firms who are responsible for these great achievements must immediately come to your mind. With that originality and ingenuity inherent in his race, the American architect has tackled the problem from the strictly business or commercial standpoint, and has successfully evolved the modern commercial structure which has become the model for buildings of a like nature in almost every great commercial city in the world. He has, in fact, created what we might term a new style in commercial architecture. With regard to the firms who have been mainly responsible for such works, it would have been impossible for them to have acquired such extensive practices, and to carry them on so successfully, without possessing great business talent in addition to high architectural skill.

It has been said that to the business or commercial man in America architecture has become almost as necessary as life itself. During the last 20 years he has come to recognise that a fine building is a necessary accompaniment to a fine business and has learned to appreciate good architecture. It would appear that the architectural profession in the United States is held in higher regard and commands greater influence than in any other country at the present time. Architects themselves hold a very strong position in the States, controlling and directing public opinion on all matters relating to their profession.

It cannot be claimed, I fear, that architectural influence in this country has attained to this enviable position. The lack of acknowledgment of our profession by the State during the late War was very marked. The allied professions of engineering—civil, mechanical and electrical—were all called upon by the Government to assist in numerous directions on war work. The architectural profession might not have existed, it was absolutely ignored by the State, at a time when the services of its members would have been most valuable in designing and superintending the erection of the numberless structures required for war purposes. The designing of these works was frequently left to the tender mercies of the staff of the contractor, employed in some cases, it would appear, almost regardless of expense. In the hands of a competent architect hundreds of thousands of pounds could have been saved to the State, with equal if not greater efficiency.

Whether this neglect was due to ignorance on the part of those who controlled these matters (by no means an unlikely explanation) or to lack of status in the profession itself, it is somewhat difficult to say.

It is common knowledge that certain professions, our own amongst them, look with indifference—if not with contempt—towards anything pertaining to com-

mercial matters. I have read somewhere that this trait is not peculiar to the present age but has been a feature of society more or less in all ages and in all countries. This prejudice, it is supposed, had its origin in the superior qualities of mind and character possessed by the professional classes, as distinguished from the general body of the population. In more recent times, however, there has been a considerable levelling up of society, and the gulf which so long continued to separate the different sections of the community has been greatly reduced in its dimensions.

The late war has undoubtedly been responsible for bringing about this condition of things much earlier than would have been the case under more normal circumstances. It has also been the means of changing, to a large extent, the nature and character of the work which is likely to form the mainstay of architectural practice for a considerable time to come. The high costs of labour and material now prevailing and, so far as we can see, likely to prevail for an indefinite period, are such as will prevent what has been termed for lack of a better name the "luxury" type of building being carried out on any great scale for an indefinite period.

The "luxury" type of building may be said, I suppose, to embrace domestic architecture of a superior character, with its accompanying requirements, ecclesiastical buildings and so forth, in fact all buildings other than purely utilitarian structure or structures the cost of which is defrayed out of public rates, such as educational and municipal undertakings. In short, the architecture of the future is likely to find a larger field in the commercial or industrial world than it has done in the past, while domestic and other kindred work, with the exception of Housing Schemes, have been brought—in the meantime at least—almost to a standstill. There will be exceptions of course. Many who were comparatively poor in 1914 have now become immensely rich. This class will naturally desire outlets for their fortunes, but the probability is they will be able to acquire estates and mansions previously held by those who have been less fortunate financially and who can no longer afford to retain their present possessions under the strain of higher taxation and increased cost of upkeep. While this field of architectural practice, therefore, may have become restricted, there are others opening up, as I have already indicated, which may offer greater opportunities than we have hitherto experienced, in industrial and commercial work.

The industrial expansion which we hope will shortly take place in Great Britain, and which is likely to continue for some years (provided it is not throttled by labour, and so diverted into other channels, to our country's loss), must bring in its wake a larger demand for commercial and industrial buildings, probably of a higher order architecturally than that which previously prevailed. New industries are being created and developed on a great scale. The forces of nature are now being utilised and harnessed in a manner hitherto unknown. The increasing intensity of life which the

Great War has brought about must open up new spheres of activity, presenting new fields for ingenuity in planning and opportunities for originality in design.

Architects and architecture must keep pace with this modern development in industry and commerce. We must study and be ready to adopt the most modern methods of construction to make use of new materials and adapt the design of our buildings to meet the new requirements. In addition to this it will be highly desirable for the architect to study business and commercial methods, if he means to make the most of the opportunities which these new conditions are likely to offer.

Unless we bestir ourselves and realise the changed conditions and new requirements we may be forestalled, to a large extent at least, in this sphere of work by a new class of professional gentlemen who have sprung up in recent times under the denomination of "Constructional Engineers," and who threaten to become a worse menace to architecture than our old friend of the past, the speculative builder. If these gentlemen were content to confine their energies to constructional work all would be well, but they take upon themselves the designing (if this term can be applied to their productions) of façades and planning of buildings, with results which can only be termed disastrous from every point of view. You can, I am sure, call to mind many monstrous erections built in recent years, products of the so-called "Constructional Engineer," which, had the work been designed and carried out by a competent architect, would have produced very different results, and possibly at considerably less cost to the owner. Far be it from me to disparage the ability or competency of the constructional engineer in his own legitimate sphere. It is only when he encroaches on the functions and duties of our profession and in doing so exceeds the limitations of his own knowledge under the guise of "universal building providers," that exception is taken to these enterprising gentlemen.

Now, it is in instances of this kind where the commercial or business training of the architect could make itself felt, by endeavouring to bring commercial and business men to see that their interests would be better served in every way were they to place their requirements in the hands of a competent architect. We belong to a noble profession and it is our duty to do all we can to inspire that public confidence and respect for architecture which is the due of so great an art.

Success in any business largely depends on giving satisfaction to clients. On all important matters the client must see the principal and the principal must not only direct, but make sure that his client's requirements are given effect to.

The architect meets his client at the beginning of the project, whatever it may be, and is expected to keep in touch with him from start to finish. Clients strongly resent any neglect in this respect.

In dealing with clients it is very essential that you

should study their likes and dislikes. I do not suggest you should give way to every idea or fancy they may express, should you consider these to be radically wrong, but by adopting a tactful attitude you may be able to convince the client that your methods or ideas are preferable to his and so in the end obtain your own way. Some clients are possessed of excellent ideas both as regards planning and design, others are devoid of all knowledge of both. The former can be very helpful to the architect, enabling him to arrive at the necessary requirements in the shortest time and with the minimum of trouble.

One of the most essential qualifications in any business or profession is *tact*. It is indispensable to any business or profession and in no more so than in the architect. In fact, it is impossible to create a large practice and continue to carry it on successfully without tact. It is equally necessary when dealing with client, contractor, craftsman or workmen. Tact enables one without hypocrisy or deception to be seemingly the same to all men, yet varying with each according to his peculiarity, to understand other people, to show deference to their opinions, even their prejudices with a disposition to give and take.

Tact is the qualification most essential to success, in knowing how to do a thing at the right time, the secret of almost every successful career. It is a kind of intuition by which its possessor can do *at once and often better* than those who have had long experience, but are deficient of tact, *things that require alike cultivated taste and judgment*. It is not given to all men to be gifted with tact. Like the artistic or musical faculty, it is largely a natural endowment; yet the least gifted, by studying the ways and manners of those who are known to be tactful, may materially improve on what they already possess. An eminent writer has said that "Talent is a good deal, but *tact* is nearly everything."

When industrial buildings are required by commercial men the first consideration, as a rule, is finance. The commercial man requires a return on his outlay. He desires his building to be erected rapidly, for the quicker the building is erected and completed, the sooner it will become a revenue-producing asset. Hence it may be laid down as an axiom that where capital is spent on any undertaking which is revenue-producing, the more rapidly it is spent consistent with efficiency, the more profitable it will be to the owner. It is hardly necessary to mention, although we are sometimes inclined to overlook the point, that the greater the economy exercised both in construction and design in this type of building, the greater will be the value to the owner.

Rightly or wrongly, there is a very prevalent idea abroad amongst the general public that the architect's estimate of work is not altogether reliable and that the final cost is nearly always considerably in excess of the original estimate. As you all know, many hundreds of thousands of pounds have been invested on our suburban residences, and this work has to a large

extent passed the profession altogether and gone the way of the speculative builder, and I am not sure if the success of the speculative builder has not been largely due to this doubtful factor, the architect's estimate.

The man in quest of a suburban residence would say to himself: "Shall I employ an architect and build, or buy a house ready made?" With the former there was the uncertainty of cost, with the latter the key could be had for a fixed sum, which in many cases determined the matter.

What great opportunities existed in the suburbs of our own city—opportunities, alas! no longer available—for fine lay-outs and varied architectural treatment, instead of the monotonous repetition of speculative monstrosities which now cumber the ground. In this respect we seem to have retrogressed during the last quarter of a century, for during the previous decade some excellent residential work was produced in such terraces as Great Western, High Windsor and Kew, and also that fine and dignified lay-out leading up to the heights which overlook the West End Park. These, with a few other exceptions, constitute the only redeeming features in our suburban architecture, and Glasgow would be poorer architecturally without them.

The Great War has changed our ideas and methods in many ways; let us hope it may also lead to a saner and better understanding in regard to such matters, and that we have seen the last of "mass production" in our better-class dwelling. Architects can help towards this, by endeavouring through business methods to gain a better grip of public estimation and confidence in all things relating to our profession.

I will not go the length of saying that the profession has been entirely responsible for this unfortunate stain on its reputation: I refer to underestimating the cost. The client himself is often the culprit. After the architect has given an estimate of the cost of the scheme, the client frequently insists on additions or modifications which involve an increase considerably in excess of the original estimate, and unless he is made aware at the time of the amount of the increase, he continues to carry the original sum in his mind, so that, when the final accounts are made up, disappointment ensues.

When alterations of a considerable extent are suggested by the client it is always well to notify to him at the time of the additional cost involved, giving him a statement in writing. Sometimes it happens that an error or errors have crept into the schedule of quantities, owing either to an improper interpretation of the drawings, or through lack of sufficient information being supplied to the surveyor when the quantities were being prepared.

On the other hand, the error may be entirely the fault of the surveyor. Whatever the cause may have been, unless it can be clearly shown that a corresponding increase has been made on the plan or more expensive materials used, it is invariably left to the architect to face the music and to put the best complexion

upon it he can, a task, by the way, which is seldom pleasant and never satisfactory.

It is said of a well-known architect who had established a reputation for accurate estimating that he always contrived to have a large sum in hand on the completion of his commission. That is to say, if the contract happened to be £50,000, he would get out at £45,000, with the result that the client was led to believe that his architect had actually saved him £5,000 on the transaction. His method was quite a simple one. Interspersed throughout the bills of quantities, he made it a practice to allow ample sums for various contingencies and so forth, and contrived to keep the costs well within the limits of these, thereby showing a reduction or, in other words, an apparent saving when the final accounts were submitted.

A common failing with many of us, I fear, when making up approximate estimates of designs, is the inclination to keep the probable estimate as low as possible, labouring perhaps under the impression that the client might delay or abandon the work altogether if the cost given were high. When this is done, it frequently follows that when tenders are received an amount is revealed considerably in excess of the approximate estimate, and more than the client is prepared to pay. Then follows a hurried process of readjusting the schedule of quantities, cutting and carving at the plans with a view to bringing the cost within the limits of the client's sum, a process involving a great deal of unpleasant work, not to mention worry. In such a case the reputation of the architect is liable to suffer and he fails to establish with his client that complete confidence so essential in all business undertakings where large sums of money are involved.

From experience I have found that it is better in the long run to err on the high side rather than the low, when preparing approximate estimates although I must admit that, in these days of high costs, to err on the high side is a task presenting considerable difficulty. It is well to ascertain, if at all possible, before sketches are prepared, the amount the client has in mind with regard to expenditure, and if his requirements are such as cannot be obtained within the limits of his cost, to tell him so frankly. Let him understand that in taking up this position you are acting entirely in his interest, and while he may at first show disappointment, he will come to appreciate your opinion and, what is more, you will gain his confidence and, by so doing, make the way easy for any further negotiations which may transpire during the progress of the work. A well-known shipbuilder once asked me the rather puzzling question: "How is it that architects cannot arrive at the exact cost of a building, costing £10,000 or £20,000, when a shipbuilder is able to give the price to a pound of a ship costing a million or a million and a half sterling?" I tried to answer in the best way I could by saying that costing at so much per ton could hardly be applied to buildings, and that these involved much more intricate calculations if exact costs were desired. I am not sure that he was altogether satisfied

with my reply, but I have often thought that his question offered food for reflection.

I may have somewhat laboured this point of estimating, but I feel it is all-important that each of us should do our utmost to uproot the impression that an architect's estimate cannot be relied upon. When we have achieved this, we shall have done something towards convincing the industrial or commercial man that he can get better service and better value from the architect than he can possibly receive from the "Constructional Engineer," who is designer, constructor and adviser at one and the same time.

I have already said that the excessive costs now ruling for material and labour compel us to exercise the utmost economy both with regard to the architectural treatment of our buildings and in methods of construction. Commercial and industrial men in this country, like those in America, are gradually becoming educated to the desirability of associating refinement and good taste with their enterprise. We even see this tendency exhibited in the high-class trade posters which decorate our public places compared with the crude efforts of earlier times. The advertisement pages of the various trade journals also show a tendency to refinement which was lacking a generation ago, although there is still considerable room for improvement in this respect.

The architect must endeavour to convey to the business man that a refined building does not necessarily mean extravagance, but that a well-designed and pleasing structure costs no more than the ugly one. It is, as a matter of fact, only another way of putting the same materials together. Bring to bear on your design a knowledge of proportion and rhythm, leaving all detail aside for that matter, and you get something which will attract and arrest attention, which, after all, is the main object of all advertising mediums. That there is a commercial value in a building artistically designed over that which is vulgar or badly designed cannot be gainsaid.

The commercial or business man is alive to this—in proof of which one might instance the many handsome structures recently erected in London and elsewhere by some of our largest commercial houses. That so many of these fine structures have been erected in recent years is decidedly encouraging and must have considerable influence on the commercial architecture of the future. In short, commercial men are beginning to realise that good taste in the designs of their manufactures, whether these be mechanical appliances, hardware or textiles, in their methods of advertising, and also in their buildings, is to their advantage, that it pays to give architectural distinction to their works or office buildings, and refinement in all that pertains to their business. Better housing accommodation and more pleasing surroundings sweeten the lives of their workers and create an atmosphere of peace and contentment in their ranks, conditions which make for greater efficiency and reliability, thereby contributing to the general prosperity of the country.

In passing, I should like to say a word or two regarding the Government Housing Scheme, which bulks so largely in the public mind at the present time. Its progress reminds one of a huge locomotive trying to get on the move over slippery rails—plenty of energy, noise and fuss, but making little headway. The reasons assigned for the delay, as you all know, are many and varied, and, notwithstanding all the efforts on the part of the authorities, and inducements thrown out by the Government from time to time, it still continues to lag.

Take the matter of Government subsidies. These subsidies of from £240 to £260 per house, from all I can learn, have been going largely into the pockets of men who would have built houses apart from any subsidy. It is a well-known fact that even if the largest subsidy were granted on the smallest size of house required by the Ministry of Health, the house could not be erected at present day costs on an economic basis; consequently the work would not be undertaken by anyone building simply for investment. I am of opinion that if the Government, instead of subsidising with large sums of money building contractors and proprietors, had confined the subsidies in combination with generous loans in an attractive form and at a low rate of interest to the working men themselves, more favourable results would have been achieved.

The mere fact that the employer, who in the eyes of Labour is the capitalist, was receiving a substantial subsidy from the Government, had only the effect of stiffening the backs of the workers in their demands for higher wages. This was shown by the increased cost of building which took place immediately after the granting of the first subsidy of £150 per house. A year later the Ministry increased the subsidy to £260, only to be followed by another rise in cost. The granting of these subsidies in the form adopted by the Government is entirely wrong in principle, and undoubtedly their introduction has done far more injury than good to the progress and economic cost of building, and this applies not only to housing schemes but to building work of every description.

There can be no doubt that a great deal of the discontent and unrest at present prevailing in the ranks of labour is due to housing conditions, not only because of inferior houses but also from the system of weekly or monthly rentals so prevalent in large industrial centres. This custom tends to make the working man indifferent towards his home. He may be on the Clyde to-day and on the Tyne to-morrow, with no fixed place of abode. This migrating system cuts at the root of all stability in industrial life. On the other hand, let the working man become the owner of his own home and you entirely alter the conditions of his life. He takes an interest in the things and places around him, in his home and garden plot. He takes a pride in being owner of his own dwelling and feels that he has a stake in the country, something to live for and to work for, and becomes a contented and peaceable citizen.

I do not suggest that all working men would fall in with the proposal I have indicated, but I feel sure a large number of the best and most reliable class of workmen, if attractive conditions had been presented to them, would have taken advantage of the system, and as time went on their number would increase and their influence amongst their fellow-workers would become a valuable asset, far-reaching in its effect on industrial life as a whole, allaying unrest and discontent, fostering goodwill and contentment. Ownership, combined with better environment and more agreeable social conditions, would lead to refinement of ideas, reacting with advantage both on employer and employed. I am afraid, however, I am digressing somewhat from the subject of my paper; at the same time, I feel that if we as a profession can help in any way, in however small a degree, to the solution of the housing problem we are doing something which would react with beneficial results to ourselves and our work.

With regard to the architecture of our larger buildings, insurance companies and banking concerns have long been converted to the idea that their premises should possess architectural distinction; why therefore should industry and commerce lag behind? Not that I suggest that the industrial or commercial building should partake of the nature or character of the insurance office or bank. We can recall instances where this has been attempted which have resulted in failure, not only architecturally but financially as well.

All such buildings must be conceived and carried out in a spirit compatible with their purpose and requirements: anything elaborate or bizarre in industrial structures is out of keeping and makes for extravagance. The straightforward design tells its own tale in revealing the purpose of the building, appealing alike to the practical instincts of the business man and the taste of the critic. In short, it is the fitness of the thing that matters; when we accomplish that it is always satisfactory.

We live in an era where specialising is the order of the day, and in certain trades we are compelled to rely to a great extent on the specialist for obtaining the best results rather than on our own knowledge. But the architect, whilst knowing his own limitations, must always remain the controlling director in the scheme and consult with the specialist as to the best means of arriving at the requirements of each particular project. In dealing with economy in building it should always be remembered that economy and cheapness (if the latter word has any meaning in these days) are not synonymous terms. Cheapness of itself cannot be looked upon as economy. Very often cheap work and cheap material are the most costly in the long run, requiring constant renewal and upkeep and causing continual irritation. It does not follow that the lowest tender received is the best bargain for the client, and it may be that the man at the top of the list has allowed a smaller percentage of profit on his work than the lowest offerer. Further, the organisation and capa-

bilities of the latter for carrying out the work may not be such as would enable him to execute it in the shortest possible time, which means a delay in the monetary return on the outlay, with consequent loss to the client. The whole matter hinges on value received. One contractor has allowed for giving only the best material and the most careful workmanship in accordance with the specification; while another only intends giving the poorest he can get off with, in both. On this basis competition is not on equal terms and such a position is often created when unlimited tendering is resorted to. Public bodies, Corporations and so forth, too often—on a matter of principle, I suppose—insist on accepting the lowest tender, without any regard to the qualifications of those tendering, and in recent years this tendency has become more pronounced. Whether this is due to the greater representation of Labour on these bodies or from other causes I am not prepared to say, but one would have thought that *Labour*, with its greater knowledge and experience in the quality of work, would have made its influence felt in the direction of getting the fullest value for outlay and in giving encouragement to Labour at its best.

When the client insists on the cheapest offer being accepted, he naturally argues that the contractor has to work according to the plans and specifications, and it is the business of the architect to see that these are rigidly complied with. In theory this sounds quite reasonable, but what about practice? I may at once say that with a poor or indifferent contractor, no matter how clear and comprehensive the plans and specification may be, no matter how strict the supervision, unless the tradesmen employed have got the brains and hands, combined with a willingness to turn out good work, it is all in vain.

Nothing can be more disheartening to the contractor who lays himself out to give only the best in labour and material, with a reasonable profit for his trouble and outlay, than to find that another has secured the contract who has no intention, or even, with the best intention, has not the capacity or organisation to do the work as it should be done or as he would have done it. I have often been interested in observing the different types of workmen employed by different contractors. On the one hand you find a man, respectful in his manner, careful with and taking a pride in his work and anxious to please. On the other hand, you find the indifferent type, careless and independent, carrying on his work, in a way, but feeling bored all the time. You may take it as a general rule that the better the master, the better the man.

With regard to quality of work on a building scheme, be it large or small, the personal element always tells, from the top to the man who carries the hod. Work once indifferently done can never be restored or brought back to equal work of the first quality; it may be patched up and glossed over, but the inherent defects will more or less remain. In recommending a contractor, therefore, the architect takes upon himself considerable responsibility, as the ultimate result of

work will largely depend on the capabilities and integrity of the tradesmen employed.

It has been decided in the Law Courts that if an architect has certified that he is satisfied when he ought not to express satisfaction, the client is bound by his mistake, but the client can take action against the architect. The contractor, in need of great assistance to the architect, he can also be a great drawback and a source of worry and trouble all through the contract.

Before I conclude, I should like to say a few words to those young men who have just commenced or are contemplating commencing practice on their own account. I would impress upon them the great value of a business training at this particular stage of their career. It is too often the case that the young architect is left to acquire a knowledge of business methods in a very casual and haphazard way. It takes perhaps half the period of his business career before he becomes acquainted with some of the most rudimentary of business methods. If we only knew at the beginning of our career a fraction of what we gain from years of experience, how different might we have shaped the conduct of our affairs, with advantage not only to our clients, but to ourselves. There is no greater asset, therefore, to the young man commencing practice on his own account than to be possessed of a sound knowledge of business and commercial methods. Such knowledge endows him with confidence when dealing with clients in matters relating to finance, for instance, as well as in many other transactions of importance to be met with in the conduct of his profession. It enables him to speak with authority. It enables him to state his case with greater clearness and decision and thereby inspire confidence on the part of the client, who feels that he has someone with whom his interests are safe and who can be trusted with the work he has placed in his hands.

Experience, of course, is the supreme educator, but experience takes time and is often bitter. By acquiring an early knowledge of business methods we are better able to avoid mistake in the general conduct of our affairs, and such knowledge will largely compensate for that lack of experience which time alone can bring us. There is an old saying that "Experience teaches fools." A well-known writer says this is untrue—for he is a wise man who profits by his own experience, a wiser still who profits by the experience of others, but the fool profits neither by his own nor by others' experience.

The young architect may make up his mind and be prepared to face many disappointments and troubles during the first few years of his professional life. He will probably have to put up a lot of half work on plans and schemes which never mature, or on competitions which do not come his way. On the other hand, the architectural competition offers an opportunity for the young architect which cannot be neglected, and there have been many instances where the winning of a competition has laid the foundation of a successful

business career. In fact, the open competition invests architecture with an advantage possessed by few, if any, of the other professions, for it enables a young man of talent to rise from obscurity to the front rank of his profession.

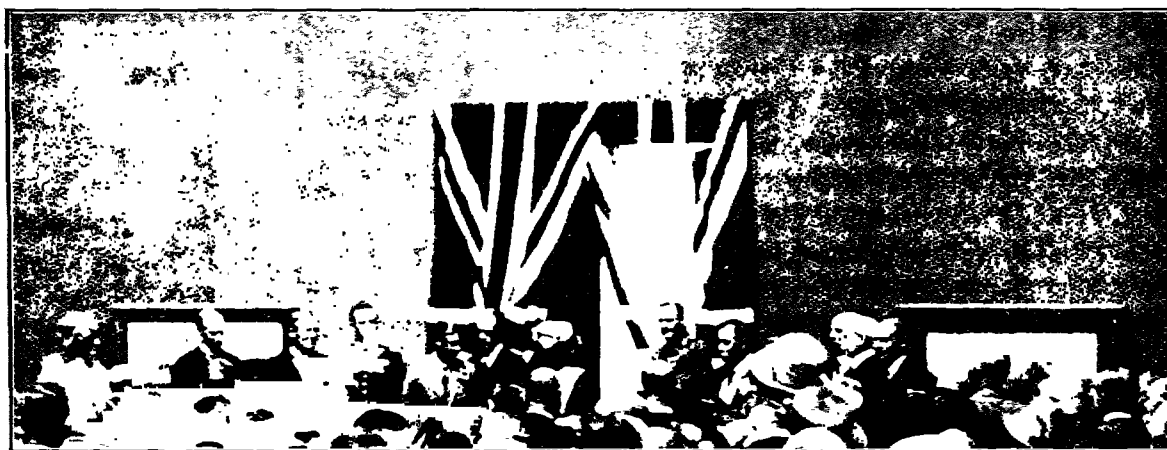
Never enter a competition unless you know that both you and your staff are capable of dealing with it without interfering with the work you have already on hand. The time allowed for competitions is sometimes very limited, or the work is not taken up until a short time before the sending in date, then a rush follows to get the drawings completed, and the ordinary work of the office is for the time being set on one side. This is neither fair to your clients, nor does it benefit your competition design. Competitive work, therefore, should never be allowed to conflict with work which has already been entrusted to you without competition.

Clients are naturally reluctant to place important commissions entailing the spending of large sums of money in the hands of the young architect who has little to show in the way of executed work, and this is the "steep" you have to climb before you reach the fair way on the other side. But do not despair: life never yet ran smoothly, and can hardly be expected to alter its character for us. We must take it as we find it and fashion it into the best shape we can, by patience and perseverance. You will often find an excellent will is a capital substitute for want of power. It is useless brooding over our troubles and disappointments, we must try rather to make headway against them. Men will push you along if you seem to be going along, but if you alter by the way they may hesitate to help.

Never neglect the small things, give as much attention and care to the hundred pound commission as you would to the ten thousand. In this way you will build up a reputation which will one day bring its own reward. Let your work be thorough; what is worth doing at all is worth doing well. Never hesitate to scrap a whole set of drawings if after they are completed you have discovered something in the general design or plan that would improve your scheme, economically or otherwise; remember that drawings, after all, are but sheets of paper—it is the executed work that matters.

Never feel completely satisfied with your own work. Where there is complete satisfaction there can be no advancement. Everyone should strive to better his position, but he must have the talent to climb, and the power to sustain himself when he gets there. We all have certain faculties and a certain worth and have all received certain talents. We must persevere and use what we have to the very utmost, patiently enduring all disappointments, whatsoever they may be. Make up your mind that you are to do a certain thing, to accomplish a certain object, and persevere to attain it. Without perseverance we are as shifting sand, which never bore a noble edifice.

OPENING OF THE BRISTOL SCHOOL OF ARCHITECTURE.



ON THE PLATFORM

From left to right the figures are those of Sir Aston Webb, P.R.A.; Mr. G. C. Lawrence, President of the Bristol Society of Architects; the Sheriff of Bristol; H.R.H. the Prince of Wales; Admiral Halsey; Dame Janet Stancomb Wills, President of the Royal West of England Academy; Earl Beauchamp, Lord-Lieutenant of Gloucestershire; the Lord Mayor of Bristol; Mr. E. W. Savory, Chairman of the Council of the Royal West of England Academy; Mr. John W. Simpson, President R.I.B.A.; Mr. W. G. Newton, President A.A.

The Prince of Wales's Speech.

"I AM very pleased to have the opportunity during my visit to your splendid city of opening your new School of Architecture, which is founded by the Bristol Society of Architects. I am glad for my own sake that architecture is such a difficult and technical subject, because I shall not be expected to make a speech. But I should like to say this: During the war the profession did splendidly in sending recruits to the army, and it is very hard that it should have suffered perhaps more than any other profession from the effects of the war. Unfortunately, an erroneous impression exists in many quarters that an architect is an expensive luxury. This is utter fallacy. The architect depends for his effects on good proportions, and can give you buildings which are a pleasure to see at the minimum cost, and it is really great economy to employ an architect, as I know from experience on my own estates. The School is at present a small one, consisting mostly of ex-Service men who are training for their new profession. It has a vast future before it. In your own city, in Bath, and in the neighbouring counties, you have an unrivalled field for study. There is hardly a district in the country which can compare with it. The first students have a great responsibility. By your enthusiasm you can make or mar the School. Aim, therefore, at making your School one of the leading schools in the country; and help to guide public opinion rightly, so that buildings of the future may be worthy of your beautiful country and worthy also of the men who fought in your famous West Country regiments. I have great pleasure in declaring open the Royal West of England Academy School of Architecture, and can assure you that I shall always take the greatest interest in its future development and prosperity."

Some Impressions of the Opening, by an Associate.

The most ardent well-wisher of the Bristol School of Architecture, or, to give it its proper title, the Royal West of England Academy School of Architecture, could scarcely have wished for it a more auspicious send-off than that vouchsafed to it on the occasion of its opening by the Prince of Wales on the 10th inst. The conjunction of the Heir to the Throne and the Presidents of the Royal Academy and the Royal Institute of British Architects as principal actors in the opening ceremony of a provincial school of the kind was, to say the least of it, unusual--overshadowing, though not, of course, detracting from, the presence of what under ordinary circumstances would have been a sufficiently distinguished company of supporters, including the President of the Architectural Association (Mr. W. G. Newton), Professor Boesford Pite, Mr. G. Gilbert Scott, A.R.A., Mr. Herbert W. Wills, and Mr. Maurice E. Webb--surely an impressive group.

Impressive, too, in another way, was the great gathering at the evening reception. The Prince and Sir Aston Webb (the star turns) had returned to London, and this was clearly not a collection of the idle or curious, but a drawing together of the best elements of a city very far from mean, for the express purpose of rejoicing over the advent of a welcome addition to the civic family: an influential, intelligent, sympathetic company whose presence and interests augur well for the highest prosperity of this, the latest, venture of the West Country.

Everything went well. True, the Prince failed, in the mad rush of a five hours' hustle, to keep to his timetable, and the ceremony was, therefore, compulsorily curtailed; but the informality in procedure which necessarily resulted added charm and piquancy to what, in any case, would have been a flying visit.

Chairman, too, was not lacking from the dinner in the famous Oak Room of the Red Lodge, where the President and Council of the Bristol Society of Architects entertained their London visitors—a chair by no means limited to the beauty of the architectural setting.

The writer was privileged to be present at each of the functions mentioned, and is satisfied from what he saw and heard and felt, that the Bristol School is destined to become a notable factor in the revival of English architecture. And this opinion is due to no mere emotional reaction to the influences of a wonderful day: there are solid tangible grounds for the faith professed. First, the school was established, not to impose education upon the unwilling, but in response to the definite appeal of students whose zeal and capacity are clearly demonstrated by the stuff they have produced in the five short months of the School's career. Secondly, it was created, not by the solitary and conceivably self-tainted activity of an individual, but by the concerted and self-sacrificing effort of a band of enthusiasts in the guise of the Bristol Society of Architects. Too much emphasis cannot be placed on the fact that this Society has not only borne the cost of the foundation of the school, but has made itself responsible for its maintenance. Finally, it was abundantly clear to all who had eyes to see and ears to hear that the purpose of the promoters is to educate in the widest sense of the word.

That students of the Bristol School shall be able to hold their own in competition with the students of other schools for the professional prizes and scholarships, is by no means their whole intention. Rather it is their hope and aim (held and stated, be it said, with due modesty) that the efforts they have put forth, and propose to maintain and augment, shall presently produce a system of all-round training not unworthy of the great art whose interests they have set themselves to serve. The profane may gibe, but in these days of short cuts and so-called "intensive culture," of over-emphasised draughtsmanship and meretricious superficiality, it is refreshing to come in contact with a body of opinion so fully alive to the fact that the production of architecture demands the exercise of those highest qualities of mind and spirit in the absence of which mere technical skill is a veritable instrument of the devil.

Some account of the Royal West of England Academy School of Architecture and of its organisation and administration appeared in the JOURNAL of the 5th February last. The proceedings at the formal opening by the Prince of Wales [*Hon. F.*] on the 10th inst. and at the dinner and other functions given in honour of the occasion by the Bristol Society of Architects, are reported in *The Builder* and *The Architect* of the 17th inst. The following members assisted at the opening ceremony and had the honour of presentation to His Royal Highness: Mr. G. C. Lawrence [*F.*], President of the Bristol Society of Architects, Sir Aston Webb, K.C.V.O., C.B., P.R.A. [*F.*], Mr. John W. Simpson, President R.I.B.A., Mr. W. G. Newton, M.C. [*A.*], President A.A., and Mr. H. Chalton Bradshaw [*A.*], Master of the School. Other members present were Mr. Maurice

Webb, D.S.O., M.C. [*F.*], Mr. H. W. Wills [*F.*] and the following members of Council of the Bristol Society: Sir Frank Wills [*F.*], Mr. Graham C. Awdry [*F.*], Mr. Mowbray A. Green [*F.*], Mr. George H. Outley [*F.*], Mr. S. S. Reay [*F.*], Mr. J. Bertram Wills [*F.*], Mr. W. J. Stonner [*A.*], Hon. Secretary of the Society and organiser of the various functions at which his Society were the hosts, and several ordinary members.

Mr. G. C. LAWRENCE, presiding at the dinner given by his Society and proposing the toast of "Our Friends from London," said it was a great honour to have the head of the Institute with them. They had all admired the way in which, during the past two years, Mr. Simpson had worked for the profession, and they appreciated his great ability and organising power and the progress he had made towards the end he had in view. They also had the warmest wishes for their ally, the Architectural Association. He did not know what they would have done in the School had it not been for the Association; and they owed a great deal to Mr. Maurice Webb, whom they looked upon as the actual founder of their School of Architecture. It was entirely through his coming to Bristol and talking to them about the Architectural Association that they ventured on the School, which they hoped would be very successful.

Mr. JOHN W. SIMPSON, in reply, congratulated Bristol on the successful issue of its efforts, and said that when the money market was better and the strikes were at an end, they would need all the students now being trained. Therefore, Bristol had taken a wise and sensible step in providing training for students. He did not think they need have any fear of their finding work. The same congestion of students was to be found in every profession, because of the four or five years in which none were trained. They were really only making up the normal average, and things would level themselves as time went on, and he had no fear about the future of the profession.

Mr. LAWRENCE said he hoped the School would teach students how to distinguish good from evil in architecture. He did not think it was possible to distinguish between the school of architecture and the school of ethics, as an architect was only really successful in so far as he expressed what was true, honest, pure and right. The great purpose of the School, so far as they were concerned, was to turn out good men, men who had high thoughts, high aspirations, and who took up their profession not so much as a calling by which to get a living, as a vocation which would do good not only to themselves but to their brethren. They would only consider themselves successful if they turned out great men.

Sir FRANK WILLS, in proposing "The President of the Bristol Society," said he hoped one result of the School would be the production of true architects, men who would become noted for true and honest dealing with all with whom they came into contact as clients, men who would be true to the principles of all that was right. Cleverness was not everything. It was honesty that would stand the test of time. When people went to an architect they should be sure of obtaining the best advice and straightforward dealing. That was the aim of the Bristol architects, and of none more than their President.

At the reception held at the Royal West of England Academy, the guests were received by Dame Janet Stancomb-Wills as President of the Academy, Mr. G. C. Lawrence as President of the Bristol Society, and Mr. John W. Simpson as President R.I.B.A.

Mr. SIMPSON in a brief address to the assembly spoke first of all on the recent stimulation of interest in design by the

correspondence in *The Times* on "Art in Common Life": secondly, on the general aspect of architecture in relation to public needs; and thirdly, on the importance of exercising independent judgment on the relative merits of new buildings, in the same way that laymen examine and form definite views on painting, the drama, music and works of literature. It was essential, said Mr. Simpson, that the faculty of observation should be continually exercised and that people should not be content with the assumption that architecture was a difficult science of which the public could know nothing. He pointed out that the absence of technical knowledge did not debar the public from the pleasure and satisfaction to be derived from the contemplation of architecture, just as one could obtain delight and instruction from the works of the musician and the man of letters, although one may not have studied the arts by which such works were produced.

Professor BERESFORD PITE pointed out that the Bristol School of Architecture as one of the Schools recognised by the R.I.B.A. would be able to mark out its own line of special study and develop on local architectural character. Such character could be seen in Edinburgh, Bath, Swansea and Cardiff, and that architectural character was capable of development at the Bristol School and was an effective means of promoting the civic idea. In the beautifying of Bristol its local characteristics, needs and ideals could be cultivated and expressed.

NICHOLAS HAWKSMOOR.

IN accordance with the recommendation of the Art Standing Committee the Council have arranged for the reparation of the tomb of Nicholas Hawksmoor in the churchyard of St. Botolph's, Shenley, Herts (near Barnet). Attention had been drawn to the dilapidated state of the tomb in a letter addressed by Mr. John B. Chubb [F.] to Mr. Guy Dawber, and forwarded by the latter to the Art Committee. The Hon. Secretary of the Committee, Mr. Maurice Webb, visited the tomb in company with Mr. Chubb and whilst in the vicinity learnt from the vicar and churchwardens that they were in sympathy with the desire to rescue the tomb from further decay and put it into decent repair. As a result of Mr. Webb's report, the Art Committee sent up a recommendation to the Council that an estimate be obtained from a local firm for clearing away the overgrowth, filling up the crack in the slate slab and making the inscription more legible. The Committee further recommended that a record of the great architect's career, together with a copy of the inscription on the tomb, be presented to the vicar and churchwardens with a view to its being hung in a suitable position in the church. As stated above, the work of reparation has now been put in hand, and the following record has been compiled by the Librarian for hanging in the church:—

Nicholas Hawksmoor, who died on the 25th March 1736, at the age of seventy-five, was buried, in accordance with a wish expressed in his will, in the Churchyard of St. Botolph, of this parish, on the 3rd April following. At the age of eighteen Hawksmoor became the "scholar and domestic clerk" of Sir Chris-

topher Wren, and under the tuition and patronage of that great architect, unostentatiously and with unremitting diligence, occupied many important positions at a period in English history which is especially notable for architectural achievement. He held appointments under the Crown during the reigns of Charles II., William III. and Mary, Queen Anne, and George I. In 1683, he acted as supervisor at Chelsea Hospital; in 1690, he was appointed clerk of the works at Kensington Palace; in 1689, clerk of the works at Greenwich Hospital; and in 1705, deputy surveyor. From 1715 until the time of his death, in 1736, he held the appointment of secretary and "draftsman" to the Board of Works, and towards the end of that period became also principal surveyor of His Majesty's Works.

After the death of Sir Christopher Wren (in 1723) Hawksmoor was appointed Surveyor-General of Westminster Abbey and continued the building of the western towers, which were completed in 1735. In the discharge of his duties in the above offices many important architectural works, most notably at Greenwich, were carried out under his control and supervision. He further assisted Wren in the erection of St. Paul's Cathedral soon after its commencement (21st June 1675), and was connected with the work until its completion: in 1713 he was associated with the same master in the building of the mansion of Easton Neston, Northamptonshire. He was assistant surveyor under Sir John Vanbrugh at Blenheim Palace, Oxfordshire (1705-1715), and Castle Howard, Cumberland (1702-1714). In 1713 he was engaged on a work of restoration at Beverley Minster, and was successful in "screwing up" the north front of the north transept, which had inclined four feet beyond its base. He was further engaged on important works at Oxford—the north quadrangle of All Souls College (c. 1721), and the south quadrangle of Queen's College, including the hall, chapel, and front to the High Street (1710-1759); and was associated with Sir John Vanbrugh in the design and building of the Old Clarendon Press buildings of the same city.

In 1708, in the ninth year of the reign of Queen Anne, an Act of Parliament was passed "to erect fifty new additional parish churches in the cities of London and Westminster," to replace the eighty-six churches destroyed by the Great Fire in 1666. Hawksmoor was engaged as one of the architects, and in 1716 he, with John James, of Greenwich, was appointed a surveyor to the Commissioners. The following churches were built from his designs: St. Anne's, Limehouse (1712-1724); St. George's-in-the-East (1715-1723); St. Mary Woolnoth (1716-1719); St. George's, Bloomsbury (1720-1730); and Christ Church, Spitalfields (1725-1729). He was also the architect of St. Alphege at Greenwich, of which, however, the steeple was designed by James.

Towards the end of his life he published *Remarks on the Founding and Carrying on of the Buildings of Greenwich, for the perusal of Parliament* (1728) and *A Short*

Historical Account of London Bridge, with a Proposition for a New Stone Bridge at Westminster (1736).

Autograph drawings of many of his architectural works are preserved in the Library of the Royal Institute of British Architects, the King's Collection at the British Museum, Sir John Soane's Museum, Queen's College, and the Radcliffe Library, Oxford.

Record is preserved of Hawksmoor's inexhaustible energy of his tranquil temper of his magnification to personal advantage. His fame has been a little overshadowed by his great contemporaries, Sir Christopher Wren and Sir John Vanbrugh, for whom he worked. Appreciation of his influence on the architectural movement of his time has, however, grown, and although all the works which can be directly attributed to his own creation are not accepted with equal favour, he remains in the history of English architecture an outstanding figure and, at his best, a great architect.

The tombstone in Shenley churchyard bears the inscription:

P.M.S.
L
Hic jacet
NICHOLAUS HAWKSMOOR, A.M.
Architectus
Obijt vicesimo quinto Martii.
Anno Domini 1736
Ætatis 75.

CAPTAIN H. RIAL SANKEY'S TESTING MACHINE.

Report on the Demonstration at the Institute.

AT the close of the meeting of the Institute on Monday the 6th June 1921, there was a demonstration of the machine for testing steel and other metals invented by Capt. H. Riall Sankey, R.E., and manufactured by Messrs. Casella & Co., of Parliament Street, S.W. Capt. Sankey was present and explained and operated the machine.

The machine consists of a heavy spring to which is attached the material to be tested.

The test piece is a rod $\frac{3}{8}$ inch diameter and about 4 inches long. It is bent backwards and forwards by hand through a definite angle by means of a handle about 3 feet long until the test piece is broken.

A record of the force expended and the number of bends is shown automatically upon a chart. The chart also indicates the yield-point of the material, the ductility and the ultimate tensile strength per square inch.

Hand power only is required for operating the machine, which is portable and occupies a space of only about 18 inches square and 12 inches high, with further space in which to move the handle. It can be simply fixed and operated on an ordinary bench.

Mr. Etchells, President of the Concrete Institute, was present and spoke favourably of the machine, and the members present generally thought that it would be a useful apparatus, particularly for architects.

During the meeting it was mentioned that the machine had also been favourably reported upon to the Institution of Mechanical Engineers, and at Newcastle last year to the North-East Coast Institution of Engineers and Ship Builders.

Dr. Hatfield, of the Brown-Firth Research Laboratories, Sheffield, and Mr. H. M. Duncan, B.Sc., of Messrs. C. A. Parsons & Co.'s Research Laboratory, in presenting the latter report, called attention to the following tests which at present are available:

(a) The ordinary tensile test, which, however, required elaborate and heavy machinery and careful measures with the microscope and micrometer.

(b) Torsion test, which also requires elaborate apparatus. This, however, would hardly be necessary for building work.

(c) Bend test, in which a rough estimate of the strength of the material is obtained by the appearance of the test piece supported at each end when bent by pressure in the centre.

(d) Charpy test. The test piece is supported horizontally and fractured by a blow from a heavy swinging pendulum. This also requires expert knowledge and estimating of the value of the blow.

(e) Fremont test. The test piece is notched in the centre, supported at each end and fractured with a blow from a heavy weight falling from a considerable height.

(f) Ized test. The test piece is notched and fixed in a vice vertically and broken by repeated blows of a heavy pendulum striking the test piece about one inch above the notch.

(g) Arnold test, where the test piece is fixed at one end and bent backwards and forwards for a short distance at 650 times per minute.

(h) Stanton test, where the test piece receives a small blow about 100 times per minute until it is broken, the test piece being turned half round between each blow.

(i) Brinell test, where a hard steel ball is pressed into the test piece and microscopic measurements and calculations are taken of the impression.

(j) Hardness test. This, however, would not be necessary for general building work.

(k) The Sankey test above referred to.

Dr. Hatfield and Mr. Duncan in the conclusion of their report were not favourable to the Ized, Charpy and Fremont methods of testing, but of the remaining tests they considered that the Sankey test was of more general value.

The following points in favour of the Sankey machine should recommend it to architects and others engaged in the supervision of building work.

1. The apparatus is portable and comparatively cheap.

2. It occupies a small space and can be installed in any office and at works in progress.

3. It involves no scientific knowledge or special technical experience, only ordinary care.

4. Errors due to mistakes in observation are almost entirely eliminated.

5. An automatic record is given.

6. The complete test does not occupy more than 5 minutes.

7. Only a small rod for a test piece is required and the cost of the test, therefore, is trifling.

Hitherto there has been hesitation on the part of architects and others in practice calling for tests which might involve considerable delay and expense.

The Sankey machine now being upon the market gives opportunity for systematic tests being taken without any of the difficulties hitherto experienced.

A suggestion was made at the meeting that the Institute should purchase a machine for the use of London members and recommend the Provincial Societies also to purchase machines for the use of their members.

The provision of such a machine should also be of service to the Examiners of the Institute. It would not be impracticable then to expect candidates to have a knowledge of at least one recognised method of testing.

9th June 1921.

C. A. DAUBNEY [A.]

STATE-AIDED HOUSING SCHEMES : ARCHITECTS' FEES.

Ministry of Health's Memo. 51 D and General Housing Memorandum No. 52.

The subjoined Memoranda relating to fees payable to Architects in connection with State-aided Housing Schemes were issued from the Ministry of Health on the 8th June.

Memorandum No. 51/D.

ABANDONED WORK.

Attention is drawn to General Housing Memorandum No. 52, copies of which are enclosed herewith, concerning fees payable to Architects in private practice for the preparation of plans which are abandoned after approval by the Minister of Health.

The terms and conditions set out in the Memorandum have been agreed by the Royal Institute of British Architects and the Society of Architects, and will apply in every case except where an agreement providing for a specific payment for abandoned work has been made between the Local Authority and the Architect prior to the date of the Memorandum. If the Local Authority have made any such agreement, the terms of the agreement should be notified to the Minister.

The modification of plans (not involving abandonment of the design) to comply with the requirements of the Minister is covered by the ordinary payment under General Housing Memoranda 4 and 31, and is not to be regarded as abandoned work for the purpose of assessing fees.

DEFINITION OF SCHEME.

In view of doubts expressed as to the method of calculating the fees payable under General Housing Memoranda Nos. 4 and 31, it has been thought desirable to include in the present General Housing Memorandum a definition of the term "scheme" as used in the Memoranda.

TRAVELLING EXPENSES.

Questions have been raised as to the payment of Architects' travelling expenses. The scales of fees in General Housing Memoranda Nos. 4, 31 and 52 are inclusive scales covering all out-of-pocket expenses. It is recognised, however, that special provision should be made for cases in which the Architect's duties involve a considerable amount of travelling. The Minister will be prepared to allow as a charge to the Housing (Assisted Scheme) Account reasonable travelling expenses in respect of journeys over 25 miles from the Architect's office which are necessitated by the Architect's duties in connection with the housing scheme.

General Housing Memorandum No. 52.

The Minister of Health has had under consideration the question of the payment to be made to Architects in private practice for the preparation in connection with State-aided housing schemes of plans which are abandoned after approval by the Minister, and has decided that in such cases, except as provided in the last paragraph but one of this Memorandum, the following terms and conditions shall apply:—

I. LAY-OUT PLANS.

For preparation of lay-out plans the full fees according to the scale under the heading "A:—Preparation of Lay-out Plans" laid down in General Housing Memorandum No. 31 shall be payable.

II. ROADS AND SEWERS.

1. In cases where the employment of the architect is discontinued on the abandonment of the lay-out plans, the fees payable for the abandoned work shall be as follows:—

(i) If only drawings and specifications have been prepared, one-third of the scale fees set out under the heading "B.—Roads and Sewers" in General Housing Memorandum No. 31.

(ii) If all the work necessary for the purpose of obtaining tenders, including the preparation of quantities, has been done, two-thirds of the scale fees set out under the heading "B.—Roads and Sewers" in General Housing Memorandum No. 31.

2. In all cases of partially abandoned schemes the fees payable for the abandoned work shall be three-quarters of the fees indicated in (i) and (ii) of the preceding paragraph respectively, according to the circumstances of the particular case.

III. HOUSE PLANS.

(a) The references to "scale fees" in the paragraphs which follow mean the scale under the heading "C.—Cottages and Flats" in General Housing Memorandum No. 31, namely:—

5 per cent. upon 12 cottages or flats.

2½ per cent. upon a further 60 cottages or flats.

1½ per cent. upon a further 178 cottages or flats.

(b) For the purpose of calculating the fees hereinafter set forth, the abandoned work shall be deemed to comprise a number of houses equivalent to the number of separate designs which have been prepared. Such ordinary variations as are necessary to avoid monotony in appearance or mere change of aspect of borders or the like shall not be regarded as constituting separate designs.

(c) *The fees shall be calculated on the amount of the lowest tender received, or on the estimated cost, or on the maximum amounts specified in page 3 of General Housing Memorandum No. 31, whichever may be the least.*

1. In cases where the employment of the architect is discontinued on the abandonment of the plans, the fees payable for the abandoned work shall be as follows:—

(i) If only sketch plans have been prepared, one-half the scale fees, under heading C. in Memorandum No. 31, calculated in accordance with paragraphs (b) and (c) above.

(ii) If all the work necessary for the purpose of obtaining tenders, including the preparation of detail drawings, has been done, the full scale fees, under heading C. in Memorandum No. 31, calculated in accordance with paragraphs (b) and (c) above.

2. In cases where the architect is retained to prepare fresh plans, the fees payable for the abandoned plans shall be one-half of the fees indicated in (i) and (ii) of the preceding paragraph respectively, according to the circumstances of the particular case.

3. In all cases of partially abandoned schemes fees in accordance with the preceding paragraph 2 will be payable for the abandoned work. For the purpose of calculating such fees, the abandoned work shall be deemed to comprise a number of houses equivalent to the number of separate designs approved for inclusion in the lay-outs of the portions of the scheme which are abandoned, although some or all of such designs may have been utilised for the houses erected.

The foregoing terms and conditions will not apply in any case where an agreement providing specifically for payment for abandoned work has been made between the local authority and the architect prior to the date of this memorandum.

GENERAL.

The term "scheme" as used in this Memorandum and in General Housing Memorandum No. 4 and General Housing Memorandum No. 31 means the whole of the assisted scheme of the local authority, and includes the whole of the houses provided by the local authority, whether on one or more sites.

REVIEWS.

A MASTER ARCHITECT

The Art of E. A. Rickards, comprising a Collection of his Architectural Drawings, Paintings and Sketches, with a Personal Sketch by Arnold Bennett, an Appreciation by H. V. Lamb, etc., and Technical Notes by Amor Fenn. Fc. Lond. 1920. 63s. [Technical Journals, Ltd.]

Grievous as is the loss of youths and men in the Great War, whether high or low in soldierly rank, lamentable indeed as is the death of a great fighting leader, such loss is intensified a thousandfold when it involves not only a military disaster but robs the world of those giving youthful promise of great work in other directions—in industry, science, literature or art—or of those who have made their mark in these things with the certainty that they will accomplish greater triumphs in the future. To think that all this hope of fine achievement is blotted out by the loss of thousands of rare intellects, that the world is the poorer for years to come by this annihilation, is to make one doubt if all the fever of production, the fer-

tility of invention, the bravery, the devotion to mother-country and the noble acts brought forth by warfare, are sufficient to balance the spoliation caused to the finer progressive tendencies of civilisation.

Architecture, by the training of its students and practitioners, has proved itself capable of producing men with a bent of mind of great use in military service, and beyond reproach as to patriotism. Among the Arts it has the finest of records for soldierly endeavour in the great upheaval: every member of the profession, every disciple of the art is proud of the achievements of their brothers. But its losses have been of the severest, and the list of those who fell has a poignancy particularly pathetic, containing as it does names full of promise or replete with accomplishment. One mourns that the world is robbed of these men, and grieves because of the hiatus that appears in the unfolding of architectural development.

Outstanding among the architects lost in the war is Edwin Alfred Rickards, one whose accomplishments place him high as a leader, and whose promise of future achievement adds immeasurably to the calamity of his departure. Though not actually fallen in the fight, there cannot be the slightest doubt that his military services, voluntarily undertaken when over age, account for his death: while the circumstances of his long suffering in a sanatorium, amid surroundings treftful to one of his artistic temperament and tiresome to his returning architectural ambitions, add a pathos that none can resist.

In his architectural career Rickards enjoyed for years a partnership entirely ideal and of the pleasantest comradeship. It left him free to glory in the fecundity of his pencil, and to indulge his bent for fine architectural conception. This is not to say he did not have a voice in the planning and technicalities of the buildings and designs produced by his firm, or on the other hand that his partner did not exercise his wise judgment upon the architectural treatment suitable to the structure. The collaboration of the two men was balanced to a nicety as regards the outflow of their architectural achievements. His partner, unselfish to a degree and having the highest regard for Rickards's artistic skill, is the last to wish to deprive his colleague of all the merit due to him, as he is the first to feel and mourn his loss.

So great is Rickards's eminence that it is as right it should have been intended to honour him in his life by the production of a monograph of his works, as it is so sadly just that such a book should form his memorial. *The Art of E. A. Rickards*, however, does not do the man justice: good as it is, one would have wished to have seen it better: nevertheless, it serves to show, in what must perforce be a somewhat unsatisfactory manner, Rickards's versatility, the working of his mind, and his extreme brilliance of achievement with his various mediums. It is much to be regretted that some of Rickards's finest works, being out of the country, were not available for illustration, thus adding to the difficulty of selection.

For us Architects the portion of the book devoted to our art is the most interesting, but he is dull who cannot appreciate the other work contained in the volume. The dignity and splendour of his designs for monuments, and their entirely satisfactory architecture, the book illustrations, the directness and kindness of his caricatures, the composition and skill in his watercolours and sketches, all reveal the wonderful energy and fertility of his mind, his power of expression, and his desire, if not to master, at least to be much more than acquainted with all branches of art.

Rickards's delightful and fascinating rendering of architecture, of which he was a past-master, must not blind us to the merits of his architectural design. This is always pleasing, always on a high level, always logical, and, in execution, accomplished in all its details. The solution of difficult problems, of the intricacies produced by requirements and construction, are always masterly; the work is finished to a degree, and studied to the last piece of detail. Our architectural perceptions are never harassed by the feeling that the subject was greater than the master, and if we happen to differ from the idea he has expressed architecturally we feel that it is rendered in better terms than we could have used, and so demands our admiration and praise, for Rickards's works are poems, or, rather, they are music throughout. One master theme, on which he has blended variations and harmonies, pervades them from top to bottom, and creates a unity of expression which cannot fail to be observed by the most casual.

If, perchance, his architecture shows Rickards was enamoured of horizontality, he was catholic enough to appreciate verticality: and in his later designs a suppression of the horizontal to a due proportion with the vertical was becoming manifest. This would ultimately have carried him far, and would have resulted in such nobleness in his work as to have rendered him one of the great masters of the craft. His influence, great as it is from his achievements, would have been felt throughout the architectural world.

Rickards drew his inspiration from present-day life; what had passed was but the foundation upon which he based his luxurious expressions of current thought, as also his interpretations of eternal truths, in a manner peculiarly his own: but steadied as his art was becoming by ripeness of life, it was taking into itself a humanity of expression which added immeasurably to its value, and was rendering it acceptable to all.

As one can tell a Butterfield church, so one can know a Rickards building: but the pleasure of being able to discriminate the author is not that a mere personality is disclosed or a rechauffé of a past manner provided. It is that his knowledge was so great, his intention so true and his handling so masterly, that it enabled him to bridge over the gap in tradition, to heal the breach between past and present, and to render his work the legitimate descendant of fine achievements, the product of its own age, and the parent of future developments.

Few have arrived at anything approaching this result, for above personality and mere cleverness it requires insight, it demands genius. In what he did Rickards has proved he had attained perception of that great secret revealed to so few, which is behind all the arts, which is the essence of all masterpieces, causing them to merit the applause of men of every age. By natural talent, hard study, joy of life, constant endeavour, brilliant excursions among all the arts, building experience and a divine discontent with and severe criticism of his own achievements, Rickards had learnt incalculably more than most men of this secret. Scarcely in his prime, had he not fallen through the war, he would have grasped it entirely for his own, and great as he is, beautiful as is his work, he would have earned his right for all time to equality of rank with the greatest master-architects, for his genius would have come into its own.

GEOFFRY LUCAS [F.].

CORRESPONDENCE.

Unification and Registration Committee.

21st June 1921.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR.—A letter appears in the JOURNAL and Professional Press signed by Mr. A. W. S. Cross and others who appear to be in doubt as to the intentions of the Unification Committee with regard to Registration. It appears to me that the best way of putting their minds at rest is to ask them to read the Report again. It is clearly set out in that report that one of the objects of the scheme, whether under heading A or B, is Statutory Registration. Again, in Scheme A (II) it is proposed that the R.I.B.A. shall present to Parliament a Registration Bill and shall prosecute the Bill with vigour until it becomes an Act of Parliament. Similar words appear in Scheme B.

Then in the Summary of the Report, par. 7, it is pointed out that the scheme provides for Registration by Act of Parliament, and in Section 3 it is suggested that the 12 months' notice of intention to bring in a Bill should not be wasted, but that the details of the Bill should be settled during that time.

The whole of par. 8 is devoted to the Registration Bill, and it gives particulars about the Dental Bill.

In face of these facts it is difficult to see why the signatories should say "up to the present the Committee make no recommendation for dealing with the second subject referred to them," *i.e.*, Registration.

Neither is it correct to say that the Committee resolves "that all architects should be allowed to become members of the R.I.B.A.": it is particularly stated that the invitation should go to all architects who are *qualified*, and further, that these architects should enter the class for which they are qualified.

Surely nothing can be clearer. - Yours faithfully,

ARTHUR KEEN.

Hon. Secretary R.I.B.A.

Height of Buildings in London.

27, Abingdon Street, S.W.1. 22 Jan. 1921.

To the Editor, JOURNAL R.I.B.A.—

SIR.—Owing to my absence from London in the early part of this year, I have only recently learned of the action which is being taken by the Institute Building Act Committee as reported in the JOURNAL of the 9th April last, pp. 334-5.

It appears from such report that the Committee, *although not officially representing the Institute*, has actually approached the London County Council and the City Corporation and put forward proposals for nearly doubling the statutory limit of height of buildings in certain cases, *i.e.*, increasing the general limit from 80 feet to 150 feet.

Not content with this, the Committee goes on to suggest that in the City of London, *buildings 120 feet high, and two storeys in the roof additional, should be permitted in any street, irrespective of its width or date.*

There may be something to be said for buildings 150 feet in height bordering on open spaces or fronting the river, but there can be no excuse whatever for buildings of the height suggested in such narrow streets as Lombard Street, or for the matter of that, in any new 20-foot passageway that may be constructed anywhere in the City.

In such a street, no sunlight whatever could ever reach the lower offices, and it is unthinkable that such opinions should go forth from this Institute, without challenge, at the very moment when the whole problem of zoning and town planning of Greater London is awaking attention.

I desire to protest most strongly against such ill-advised and precipitate action as has been taken by Mr. Delissa Joseph and his Committee and to suggest that such action should at once be disavowed until the Institute has had an opportunity of expressing its opinion upon a matter so vitally affecting the future of London and the well-being of Londoners.—I am, Sir, your obedient servant.

W. R. DAVIDGE [I.]

The Annual Report (*ante*, pp. 427, 462).

11, New Court, Liverpool Lane, 17th Jan. 1921.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR.—The main object of my remarks concerning the Annual Report has been achieved—*viz.*, I have raised a slight ripple on the placidity of the minds of the Institute's Executive. I find nothing in the three rejoinders to disturb my views, but rather the contrary.

With regard to the method in which the Annual Report was introduced, Mr. Woodward has acquired a twenty-years' prescription to review the report, and it was commonly felt that the tradition of a quarter of a century had been upset without results in any way justified.

Mr. Keen has answered my question with regard to the number of Licentiates, and the circumstances are as lamentable as I supposed. The alarm expressed by certain vice-presidents and others on the same page as

that on which Mr. Keen's letter appears should have been expressed some eight years ago.

With regard to the appointments to the deputation to the Ministry of Health regarding the scale of charges I was not speaking of any sub-committee: I referred to the Scale of Charges Special Committee, at which Mr. Welch never put in an appearance, and the fact now made clear, that he was appointed on the grounds of his special knowledge, throws some light on the lack of consultation given by the Council to this important matter. Since I am on the subject I would like to know what this 'Scale of Charges Sub-Committee' is, having never heard of it before.

With regard to attendance at committees and Council meetings, I can only repeat what I have said year after year, that there should be a regulation inhibiting any member from further service for three years who has not attended at least 50 per cent. of the number of meetings held. There is no excuse for non-attendance at committee meetings. Death, inability, ill-health or absence from the country are simply reasons for resignation or deletion, and that the committee should have as chairman one who was not in this country during the whole session is beyond any argument, although his 'invaluable' assistance was much missed (*sic*).

With regard to Mr. Cubitt's letter, while agreeing that I have misread the statement, the principle underlying my remarks still holds good—*viz.*, on what grounds does the Institute publish in the KALENDAR a schedule of charges which is less remunerative to members than that offered by the Ministry?

On the question of subscriptions the 'hard fact' is that the balance-sheet does not show the real surplus of assets over liabilities, and what I wish to have (and the information is due to members of the Institute) is the full details of the arrears in subscriptions amounting to £930 17s. 6d. It might even be the case that when these figures are divulged subscriptions due from defunct members are put in as assets.

Mr. Gummell's letter is indeed a curious effort. He appears to have some quarrel with me, although I am, if he did but know it, one of the few live supporters on whom he could reckon if he is endeavouring to push his scheme through. He well knows that the scheme died at a meeting which was so sparsely attended that business could not be carried on. I can only say that it is a pity that something in the nature of propaganda work is not done by the Institute instead of firing at members a cut-and-dried scheme which only evokes caustic criticism without making any attempt to secure the sympathy of members.—Yours truly,

P. M. FRASER [F.]

The Literature of Architecture

Mr. Dircks's Paper, 'The Library and Collections of the Royal Institute of British Architects,' read before the Institute on the 15th November last, and published in the JOURNAL for the 4th and 18th December, is being reproduced in the *Journal of the American Institute of Architects* under the title 'The Literature of Architecture.'

THE LIBRARY.

Notes by Members of the Literature Committee on Recent Acquisitions.

A HISTORY OF FRENCH ARCHITECTURE FROM 1681 to 1774. By Sir Reg. Blomfield, R.A., Litt.D., M.A., F.S.A. 2 vols., 40, Lond. 1921, £14s. net. [G. Bell and Sons, Ltd.]

The author carries on his valuable history to the death of Louis XV., at which period he considers the old French tradition was interrupted under the influence of archaeological pedantry. The lives and works of all the considerable architects of this great period are fully treated of, and the activities of the Academy of Architecture and the organization of the Department of Royal works are described, with much other very interesting matter. The excellent illustrations are reproductions of the author's own sketches and of prints and drawings of the period.

W. H. W.

LE PARTHENON. L'Histoire, L'Architecture, et La Sculpture. Introduction par Maxime Collignon. Membre de l'Institut, Professeur à l'Université de Paris. Photographies de Frédéric Boissonnas et W. A. Muscell et Cie. Po. Paris, 1912, 46 6s. [Paris, Librairie Centrale d'Art et d'Architecture, 193 Boulevard Saint-Germain.]

This is a monumental illustrative work on the Parthenon, containing a number of fine photographs, on a large scale, of the architecture and sculpture of the Parthenon as now existing, some of the sculpture being illustrated from the examples preserved in the British Museum. M. Collignon's introductory essay is a model of what such an essay should be: concise in its language, but omitting no important considerations in regard to the history of the site and of the temple and its predecessors, or of its architectural and sculptural design. M. Collignon defends the removal of the sculptures to the British Museum, which excited the indignation of Byron: evidently considering that they are much safer there than they would have been if left *in situ*. The author gives full value and recognition to the labour of those who have preceded him in the study of the Parthenon; and concludes with an eloquent tribute to the grandeur of the temple, even in its ruined state: "c'est d'abord, entre ciel et terre, une vision unique de grandeur et de ruine." The publication, as a whole, is one of the finest which the study and illustration of the Parthenon has evoked, and is a valuable addition to the Institute Library.

H. H. S.

ATHENS AND ITS MONUMENTS. By Charles Heald Weller. University of Iowa. 80, New York, 1913, 20s. [The Macmillan Company.]

The author, in his preface, says that the plan of this book was suggested by Miss Harrison's *Mythology and Monuments of Ancient Athens*, and that probably it would have been unwritten had she decided to revise her volume. Many already familiar aspects of the subject are discussed and illustrated by photographs and diagrams. But the key to the real understanding of the place of Athens in history, and its monuments in the story of art, apart from mere archaeology, seems to be still hidden in mythology. The meaning of mythology may yet, we believe, be found in the study of tradition in relation to religion. And the science of language, as Max Müller has shown, may carry us a long way towards finding the origin of some traditions both in art, in faith, and in philosophy. It may be that too much archaeology will obscure the real values in these three

general subjects, in their intimate relations, by an excessive reiteration of views on external evidences. H. C. C.

DYNAMIC SYMMETRY: THE GREEK VASE. By Jay Hambidge. 1920, 25s. [Yale University Press, London: Milford, Oxford University Press.]

In this book of 161 pages, presumably the first of a series, Mr. Jay Hambidge defines his principles in relation to the Greek Vase in twelve chapters. The book is one to which no justice whatever can be done in a brief reference: it deserves a proper review. It is sufficient to say now that the contents mostly refer to actual vessels which have been measured and are here set forth in diagrammatic form, with photographs in some cases, and an explanatory letterpress. There are 35 pages at the beginning on the root-rectangles and 5 pages at the end on static symmetry. D. T. F.

PAINT AND COLOUR MIXING. By A. S. Jennings. Sixth edition. 80, Lond. 1921, 12s. 6d. [E. and F. N. Spon, Ltd., 57 Haymarket.]

This is an authoritative work on the technical side of painting. It includes copious information on colour mixing and a chapter on distempers. A. H. M.

WOODFALL'S LAW OF LANDLORD AND TENANT. 20th ed. By Aubrey John Spencer. La. 80, 12 15s. [Sweet and Maxwell, 3 Chancery Lane.]

This, the edition of 1921, takes the place on the library shelves of the pre-war edition of 1912, since the issue of which there have been many decisions of importance relating to the law of landlord and tenant. It includes in its consideration the Increase of Rent and Mortgage (Restrictions) Act of 1920, which gives permanent effect to the temporary war-time legislation embodied in the Acts of 1915, 1918, and 1920. C. H. T.

ANTIQUES: GENUINE AND SPURIOUS. An Art Expert's Recollections and Cautions. By Frederick Lichfield. La. 80, Lond., 1921, 25s. [G. Bell and Sons, Ltd., Portugal Street, W.C.2.]

To the architect, so often called upon (in, perhaps, an "extra-professional" way) to express an opinion as to the authenticity or otherwise of furniture reputed to be old, this book, written by an expert, gives much instruction, and should be useful. C. H. T.

PRESENTED BY MR. J. E. YERBURY, *Libraire*.

REIGLES GENERALES D'ARCHITECTURE, sur les cinq manieres d'edifices, Ascavoir, Tuscanne, Dorique, Ionique, Corinthie, & Composite, avec les exemples des antiquites, les quelz la plupart concordent à la doctrine de Vitruve. Folio, Anvers, 1550.

This is Book IV. and Book III. of Sebastiano Serlio, translated into French by Pierre van Aelst and dedicated "A Treshaute & Tresillustre Princesse Dame Marie, Roïne Douaigne de Honguerie, Archiduesse etc. par son tres-humble serviteur & paimtre Pierre Van Aelst."

ANECDOTES OF THE MANNERS AND CUSTOMS OF LONDON during the Eighteenth Century, including the Charities, Depravities, Dresses and Amusements of the Citizens of London during that period; with a review of the State of Society in 1807, to which is added a Sketch of the Domestic Architecture, and of the various improvements in the Metropolis. Illustrated by 45 engravings. By James Peller Malcolm, F.S.A. Three vols., 80, Lond., 1810-11.

MERIGOT'S VIEWS IN ROME AND ITS VICINITY, from drawings made upon the spot, coloured after the originals. Folio, Lond. [1798]. Sixty-two coloured views of Rome and its vicinity. The text in French.



9 CONDUIT STREET, REGENT STREET, W., 25th June 1921.

CHRONICLE.

Royal Gold Medal Night.

The Presentation of the Royal Gold Medal to Sir Edwin Lutyens, R.A. [F.], at the Institute, on the 20th, was witnessed by a large and distinguished company, many of whom had been the guests of the Council that evening at the Dinner held in honour of the event at the Café Royal, Regent Street. Among those present were Lord Leverhulme [Hon. F.], Lord Riddell, Sir Aston Webb, K.C.V.O., C.B., P.R.A. [F.], Royal Gold Medallist 1905, Lady Webb and Miss Webb; Sir Reginald Blomfield, R.A., Litt.D. [F.], Royal Gold Medallist 1913, and Lady Blomfield; Sir Ernest George, R.A. [F.], Royal Gold Medallist 1896, and Miss George, Sir Arthur J. Evans, D.Litt. [Hon. A.], Royal Gold Medallist 1909; Mr. Ernest Newton, C.B.E., R.A. [F.], Royal Gold Medallist 1918; Mr. Paul Waterhouse, F.S.A., President-elect; Sir Robert Lorimer, A.R.A., R.S.A. [F.], Sir Arthur Cope, R.A. [Hon. A.], and Lady Cope; Lt.-General Sir George Macdonogh, K.C.B., K.C.M.G., Adjutant-General to the Forces; Sir Lawrence Weaver, K.B.E., F.S.A. [Hon. A.], and Lady Weaver; Sir Charles Ruthen, O.B.E. [F.], President of the Society of Architects, and Lady Ruthen; Sir Brumwell Thomas [F.] and Miss Thomas; the Hon. Neville Lytton, Mr. Walter Peacock, C.V.O. [Hon. A.], Secretary of the Prince of Wales's Council, etc. The walls of the meeting-room were hung with a numerous collection of photographs and drawings representative of Sir Edwin Lutyens' work in this country and at Delhi. A small model of the Cenotaph was on the table below the dais. The President's eulogy of Sir Edwin's achievements was warmly endorsed by the audience, and the act of investiture was enthusiastically applauded.

M. Girault, Royal Gold Medallist 1920.

The Royal Gold Medallist for 1920, Monsieur Charles L. Girault [Hon. Corr. M.] was to have come to England to receive the Gold Medal at the Annual Dinner of the Institute fixed for the 11th May, but the industrial crisis made it necessary to cancel this arrangement. Through the courteous assistance of the Foreign Office, the Royal Medal has accordingly been despatched to Paris, and Lord Hardinge, the British

Ambassador, will present it to Monsieur Girault at the Embassy on behalf of His Majesty.

Since the above was written, the Secretary has received the following intimation from the Foreign Office:—

“ FOREIGN OFFICE, S.W.1, 21 June 1921.

“ DEAR SIR.—You may be interested to learn that Lord Hardinge presented to Monsieur Girault, on the morning of 20th June, the Royal Medal for the Promotion of Architecture.

“ Monsieur Girault, I am told, seemed extremely pleased and gratified.—Yours sincerely,

“ R. G. LEIGH.

“ Assist. Private Secretary.”

Presentation to the Retiring President.

Those who have been associated with Mr. John W. Simpson on the Council of the Institute during the past two years, to the number of about fifty, gave expression to their appreciation of his services to the Institute and to the profession generally by presenting him, on 6th June, with a signed Address beautifully written on vellum by Mr. Graily Hewitt, together with an antique bracket clock decorated in lacquer. The Address was in the following terms:—

We, who have been the Colleagues of
MR. JOHN WILLIAM SIMPSON,
Membre Correspondant de l'Institut de
France, during the arduous years of his
Presidency, 1919=21, ask him to recognise
in this written greeting and in the gift
which it accompanies some small measure
of the great contentment with which we
have enjoyed his company and sure guid-
ance, as well as of our sincere admiration
for the skill and devotion with which
under many difficulties he has advanced
and maintained the honour of architecture,
cherished the well-being of architects,
and increased, if that be possible, the
friendship of us, his ever-loyal friends.

[Signatures of Subscribers
and Common Seal.]

Mr. Waterhouse, who had been asked to represent the signatories, said, addressing the President that he thought the occasion might be compared to a bankrupt's meeting with his creditors but with the paries reversed. There was in this case but one creditor and a room full of debtors who found no way out of their embarrassment but by the presentation of a framed and illuminated I O U. Mr. Simpson's colleagues during his two years of office were all in debt to him, and they had tried to express, not their whole debt indeed, but their inability to repay, by the parchment now presented and by the gift which accompanied it.

He might, said Mr. Waterhouse, enlarge at length on the natural and acquired abilities which Mr. Simpson

had so successfully exercised in his position as President, but he was concerned now, not with the public and more conspicuous aspects of Mr. Simpson's success but rather with those that had made so pleasant the intimate relationship of his colleagues with himself. Among them he might at least recall his fidelity to the cause of architecture and architects, his genial power as ruler of the Council, his innate tact in varied directions, and finally a quality of friendship which could only be acknowledged—as he then did most heartily acknowledge it—by a handshake.

Mr. Simpson spoke with a great deal of feeling in reply, but said that at the moment it was quite beyond him to express adequately either his appreciation of the gift or the value that he placed on the friendship and goodwill of those who had given it. Nothing that had happened during his term of office had given him so much pleasure or had enabled him to realise as this had done the strength of the good feeling that he had always been conscious of.

A. K.

Vote of Thanks to the Retiring President.

The Meeting for the Presentation of the Royal Gold Medal last Monday was also made the occasion for an expression of members' grateful acknowledgments to the retiring President for the valuable service he has rendered the Institute and the profession at large during his tenure of the Presidential Chair. The Hon. Secretary, Mr. Arthur Keen, acted as spokesman. Mr. Simpson, he said, had brought to his task abilities of a very rare order, and had shown a most extraordinary capacity for dealing with affairs. He had devoted himself and his abilities unsparingly to the Institute's service, and, except for the two or three months early in his Presidentship when his doctors had insisted on his suspending his activities for awhile, he had hardly known a day of rest or respite from his task since he first took it up two years ago. None but those who had worked with him could thoroughly appreciate the unflagging energy, foresight, and resourcefulness which he had displayed in the direction of the Institute's manifold concerns. His term of office had been made quite remarkable for the amount of real, serious and significant work, much of which had been carried out at his personal instance and under his direct supervision. It was only fitting that members should express in some more or less formal way their sense of appreciation and gratitude, and he would propose that the Meeting pass a very cordial vote of thanks to their outgoing President, Mr. John W. Simpson, for all that he had done on behalf of the Institute during his occupancy of the Chair.

The vote was passed by acclamation, and the President on rising to respond was greeted with hearty and long-sustained applause. He thanked Mr. Keen for his generous expressions, although he greatly feared, he said, that he did not deserve them all, and he wished also to thank the Meeting—and he did so from the bottom of his heart—for the kind way in which they had acquiesced in the vote.

The King's Birthday : R.I.B.A. Congratulations.

On the 3rd June, 1921, the Chairman of the Scrutineers charged with the election of the Council and Standing Committees for the ensuing year of office sent the following telegram to His Majesty the King at Buckingham Palace :—

"Members of the Royal Institute of British Architects assembled for their Annual Election tender loyal congratulations to their Gracious Patron on his birthday.—C. H. BRODIE, *Chairman*."

His Majesty sent the following gracious reply :—

"The King has received with much pleasure the loyal message which you have addressed to His Majesty on behalf of the Royal Institute of British Architects assembled for their Annual Election. I am desirous to say that as Patron the King takes the keenest interest in the welfare of this Association."

"STAMFORDHAM."

The R.I.B.A. and the Institute of Scottish Architects.

The President, Mr. John W. Simpson, has received the following telegram from Mr. A. N. Paterson, A.R.S.A. [F], in reply to his letter regretting inability to accept the invitation for the Annual Convention of the Scottish Institute of Architects held at Dundee on the 20th inst :—

"President, Council, and Members I.S.A. send fraternal and filial greeting and thanks, with regret at your inability to join their convention."

"PATERSON, *President I.S.A.*"

Special Election to the Fellowship.

At the Meeting of the Council on the 20th June, Mr. Ralph Knott, architect of the London County Hall, was unanimously elected a Fellow of the Royal Institute. This election is made under the proviso in Clause 2 of the Supplemental Charter 1909. The proposers were Sir Aston Webb, P.R.A., Mr. John W. Simpson, President, and Mr. Maurice Webb, Member of Council.

Building Materials

It is announced that the work of the Building Materials Supply Department of the Ministry of Health is now completed, and the Ministry is anxious to dispose of all the supplies that have been accumulated since the termination of the war. After these have been absorbed, the Department will be definitely closed, and business will flow through the ordinary channels. It will be remembered that this was the policy pressed upon the Government by the Building Industries Consultative Board nearly two years ago.

The Associates and Unification.

At the meeting of the President of the Royal Institute with the Associates on the 7th June, when the steps proposed to be taken towards the unification of the Profession were discussed, it was decided, with a view to assisting the Unification Committee in its work, and in order to ascertain more definitely the views of Associates, to appoint a committee consisting of ten

members, with power to add to their number. The following Associates were forthwith elected to the Committee—viz., Messrs. W. R. Davidge, Horace Cubitt, K. Gammon, G. L. Elkington, J. Douglas Scott, Herbert A. Welch, E. Stanley Hamp, A. W. Sheppard, L. H. Bucknall, and H. G. Fisher. The following Associates have since been co-opted: Messrs. S. H. Loweth, Michael Waterhouse, and P. W. Hubbard.

Notes from the Minutes of the Council Meetings.

6th Jan. 1921.

The High Cost of Building.—The Council received and adopted a report from the Building Industries Consultative Board on the subject of the high cost of building. (See p. 456.)

Constitutions of Allied Societies.—The Council gave its sanction to certain amendments in the constitutions of the New South Wales Institute of Architects and the Birmingham Architectural Association.

20th Jan. 1921.

Allied Societies.—The Council admitted to alliance with the Royal Institute, under By-law 78, the newly formed Berks, Bucks and Oxon. Architectural Association, and approved of certain amendments to the Rules of the Northern Architectural Association.

The Archibald Dawney Bequest.—The Council approved a scheme for the annual award of two "Archibald Dawney Scholarships" of £50 a year each for two years, and one of £25 a year for two years (a total yearly expenditure of £250), for candidates who have been through the three years' course at a "Recognised School." The scholarships will be awarded for excellence in construction, and with the idea that the money should be used towards assisting the holders in the further study of construction. Candidates will be nominated by the Schools, and the selection will be made by the Board of Architectural Education, if possible without demanding the attendance of provincial candidates in London. The selection will be based largely on the actual school work of the candidates. The second year's enjoyment of the scholarships will be subject to the approval or veto of the Board.

Technical Lectures at the R.I.B.A.—The Council authorised the arrangement by the Literature Standing Committee of a series of technical lectures to be delivered during the month of November and the first fortnight of December 1921, in the R.I.B.A. Galleries.

The University of Sheffield.—Mr. J. A. Gotch was re-elected to represent the R.I.B.A. on the Court of Governors of the University of Sheffield.

The Professional Classes Aid Council.—Mr. George Hubbard was appointed to represent the R.I.B.A. on this Council.

Duration of the Session.—Under By-law 57, the duration of the session was extended to 31st July 1921.

The Royal Commission on Fire Prevention.—The Building Act Committee was authorised to co-opt additional members representing London and the provinces, and to arrange for the furnishing of evidence to the Royal Commission on Fire Prevention.

The Fellowship.—Under the proviso in Clause 2 of the Supplemental Charter, and in accordance with the provisions of By-law 12, Mr. Ralph Knott was unanimously elected a Fellow of the Royal Institute.

Wooden Houses and the Government Subsidy.—A protest was sent to the Ministry of Health against the subsidising of houses built of unseasoned wood.

R.I.B.A. Visit to the William Whiteley Village.

The third of the series of visits arranged by the Art Standing Committee to buildings of interest in and around London will take place on Saturday, 16th July, to the William Whiteley Village Homes, nr. Walton, Surrey. The Committee are arranging for a motor omnibus to convey the party direct from Conduit Street to the Homes and back. It is proposed to leave Conduit Street at 2 p.m. and return about 7 p.m., and the cost, including tea, will be about 5s. per head. Members and Licentiates desirous of taking part are asked to communicate at once with the Secretary R.I.B.A. in order that the necessary arrangements may be made.

The Times recently gave the following account of the village:—

The Whiteley Park and Village were created under the will of William Whiteley, who died in 1907, and left £1,000,000 to provide homes for aged persons. The men, it was stipulated, were to be over 65 years of age, the women over 60. The trustees, one of whom is the Bishop of London, were given large discretionary powers over the benefits to be provided. Having received the last instalment of the capital of the legacy towards the end of 1910, the trustees found, in July 1911, a site on the ridge known as Burhill (formerly Burgh Hill) on the western slopes of the Mole valley. The village is some 17 miles from Charing Cross, and two miles from Walton-on-Thames and Weybridge. The 225 acres it covers formed part of the Burhill Estate, which appears to have been included, in the time of Henry VIII, in Hampton Court Forest. Within recent years the property passed into the hands of Lord Iveagh, from whom the trustees made their purchase in September, 1911. In the next year they bought the adjoining "Fox Oak," a private house standing in five acres of ground. The half-timbered house, commanding a view of the North Downs, is now used as the administrative headquarters of the park, the flower garden being open to the villagers.

It is a beautiful spot, well wooded with pine trees, undulating, and gay with heather. There are rhododendron walks, and many a quiet sylvan retreat. Of the open spaces one forms a recreation ground, another is devoted to allotments, and a third is a vegetable garden.

Several architects and surveyors have had a hand in the building of the delightful village that has arisen amid these surroundings. The lay-out is based on the design of Mr. Frank Atkinson, and has for the principal feature a central group in the form of an octagon. Five architects—Sir Aston Webb, Sir Ernest George, Sir Reginald Blomfield, Mr. Ernest Newton, and Mr. Mervyn Macartney—were invited to design the cottages, along with Mr. Atkinson and Mr. Walter Caye, who had already devoted themselves to making the village. The external materials were to be the same in each case; and the result is that the octagon group of dwellings varies harmoniously, the monotony too often the characteristic of an institution being avoided. At present there are 240 cottages for single persons and 48 for married couples or sisters. Each of the eight sections of the octagon has a staff cottage in telephonic communication with the headquarters, and every cottage is connected by bell with the staff cottage. Among them is a Chestnut Walk (leading to the Chestnut Avenue), a Hornbeam

Walk, a Heather Walk, and, of course, a Green. These give upon a circular road, the heart of the village, and in the centre stands a monument, sculptured by Sir George Frampton, R.A. in memory of William Whiteley. North, south, east, and west avenues intersect the village, meeting at the monument.

The open-air shelter obtained by Mr. Whiteley is being erected in a pleasant position at one end of the park. Market stores were opened as long ago as 1917. There is a post-office, a hall for "pictures" and plays, concerts, lectures, and work parties, a hospital, a club, a home of rest, a library. Provision is made for villagers to invite their friends to a short stay with them, and also, by means of a motor-omnibus, for the villagers to get away themselves. There is a communal kitchen, with a restaurant. There is also a church, built from the plans of Mr. Walter Tappet. The metalled roads extend to 3½ miles, the gravelled paths to 4 miles.

The villagers number nearly 300. Each of them has had to satisfy the trustees that he or she enjoys an assured income of at least £19 10s. a year. The income of single persons must not exceed £60; the joint income of married couples must not be more than £75. The trustees provide water, electric light, fuel, a doctor, dentist and nurses, and are empowered, at their discretion, to pay certain money allowances. The terms of the trust carry their liberality into the qualifications for residence.

Willesden Hospital Competition Drawings.

The Council have lent the Institute Galleries for an Exhibition of the competition designs for the extension of the Willesden Hospital as Willesden's War Memorial. Mr. Edwin T. Hall [F.] acted as Assessor on the nomination of the President, and seven architects submitted designs. The premiums were awarded as follows :—*First*, Messrs. Greenaway and Newberry, £105; *Second*, Mr. A. Saxon Snell, £52 10s.; *Honorary* of £20 each to Messrs. Forsyth and Maule, Messrs. Ashley and Newman, Mr. W. Marchmont, Messrs. Murrell and Piggott, and Messrs. Newman and Newman. The drawings will be on view from the 11th to the 18th July inclusive.

The Design of the Picture Theatre.

Major Grierson asks for the correction of the following points in the report of his remarks on Mr. Atkinson's Paper in the last issue of the JOURNAL [p. 454].

1. The figure of sixty degrees should read six—*i.e.*, "with the ordinary lens distortion appears outside six degrees."

2. Lower down the figures should read 60 *per cent.* and 30 *per cent.*, respectively, and not 60 *degrees* and 30 *degrees*.

3. The sentence immediately following his remarks on translucent screens should read: "Another reason was that there was some specular transmission, and the intensity of the picture varies according to the part of the house from which it was viewed."

4. An important phrase was omitted from the remarks connected with ventilation. This should read— "The average cubic contents of the cinema theatre averaged about 200 cubic feet per seat, and, based on two natural air changes—a liberal allowance—this would only provide 400 cubic feet per seat per hour when it was filled."

The Army Reserve of Officers.

The Army Council have asked the assistance of the Council of the Royal Institute in obtaining members of the architectural profession to join the Army Reserve of Officers as Officers for duty with the Royal Engineers and other technical branches of the Army in the event of emergency.

Particulars of this branch of the Service are published in Army Orders 550 (1920), from which the following articles are extracted :—

681. An officer who has retired from Our Regular Forces on retired pay or with a gratuity shall be a member of Our Regular Army Reserve of Officers so long as he is liable to be recalled to Army service under Article 518. . . .

682. A commission in Our Regular Army Reserve of Officers may be granted to an officer who has held a commission in Our Regular Forces, Our Special Reserve of Officers, Our Indian Military Forces, Our Militia, Our Territorial Force, or a temporary commission in Our New Armies during the war of 1914-19, provided that his age does not exceed the limits laid down for that Reserve.

683. A commission in Our Regular Army Reserve of Officers may be granted to a gentleman who has served as an officer or cadet in Our Officers' Training Corps subject to such Regulations as Our Army Council may determine, and he shall, if his services are accepted, receive from Us a commission as an officer in Our Land Forces.

684. Our Regular Army Reserve of Officers shall be divided into two classes :—

Class I.—Officers who are fit for general service, are within the ages prescribed in Article 685, and fulfil such other conditions as may be laid down by Our Army Council.

Class II.—All other officers appointed to Our Regular Army Reserve.

685. An officer shall not be appointed to Our Regular Army Reserve of Officers in a rank higher than that which he holds or was granted on retirement, or resignation, or relinquishment of his commission; nor shall he be granted a commission if his age exceeds the following :—

	Class I.	Class II.
For appointment as :—	Years.	Years.
2nd Lieutenant	30	40
Lieutenant	30	40
Captain	35	45
Major	40	45
Lieut.-Colonel	45	50

The ages for appointment shall not apply to officers transferred to Our Regular Army Reserve of Officers under Article 681.

On attaining the following ages an officer in Class I. will be transferred to Class II. :—

	Years.
Subaltern	35
Captain	40
Major	45
Lieut.-Colonel	50

686. An officer of Our Regular Army Reserve shall be removed from the Reserve by notification in the *London Gazette* on attaining the following ages :—

	Years.
Subaltern, Captain or Major	50
Quartermaster, Riding-Master, Lieut.-Colonel or Colonel	55
General Officers	67

It is understood that there is an extreme shortage of tradesmen of all trades in the Army, and attention is therefore specially drawn to the fact that men who have already served are permitted to join Section D. of the Army Reserve direct.

Cricket : R.I.B.A. v. A.A.

The match between sides representing the R.I.B.A. and the A.A. will take place on the A.A. ground at Elstree on Wednesday, 29th June. Play will begin at 11 a.m. sharp, and stumps will be drawn at 6.30 p.m. A motor bus with the A.A. team and supporters will start from the A.A. (34, Bedford Square) at 10 a.m. Any members of the R.I.B.A. team or supporters who wish to travel by this bus to Elstree will have seats reserved for them if they will kindly communicate at once with the Secretary R.I.B.A. The return fare is 3s. 9d. Lunch and tea will be served on the ground; lunch 2s. 6d., tea 1s.

University of London : School of Architecture : Architectural Assistants.

Professor A. E. Richardson [F.] is in a position to recommend students of the School of Architecture - the majority ex-Service men - who will have completed their courses on 7th July next. Architects and others requiring assistants are invited to communicate with Professor Richardson at University College, London.

Measuring English Gothic Work.

A Student desiring facilities for measuring a notable piece of English Gothic Work during the Vacation is requested to communicate with Mr. Theodore Fyfe, 2 Gray's Inn Square, W.C.

New Architect F.S.A.

Mr. Louis Ambler [F.] has been elected a Fellow of the Society of Antiquaries.

Change of Address.

Mr. Henry J. Chetwood [F.] has transferred his office from 5, Bedford Row to No. 1, Montague Street, Russell Square, W.C.1. Telephone : Museum 196.

Modern Practical Joinery

Messrs. B. T. Batstord will shortly issue the Fourth Edition of Mr. George Ellis's *Modern Practical Joinery*. The author has endeavoured in this work to meet new requirements and to incorporate modern developments in accordance with the altered state of the trade by incorporating the chapters on Joinery Machines and their Processes, by extending the sections dealing with Shop Fronts and Fittings, Showcases, etc., and by including new chapters on Fittings for Small Houses, etc. The book is arranged in progressive form, dealing comprehensively with the elementary parts of the subject and advancing step by step to the most difficult and elaborate examples. It is to be published in one volume, but, in order to meet the needs of those who wish to study the subject by degrees, it is also to be issued in three parts, each of which will form a separate treatise.

Books Received.

Practical Geometry for Builders and Architects. (The Directly-Useful Technical Series.) By J. E. Pavanter. 8vo. Lond. 1921. 15s. net. [Chapman & Hall 11, Henrietta Street.]
Heating Systems: Design of Hot Water and Steam Heating Apparatus. By F. W. Raynes. Consulting Engineer, Head of the Department of Heating and Ventilation, Royal Technical College, Glasgow. 8vo. 1921. 21s. net. [Longmans, Green & Co. 39, Paternoster Row.]
Reinforced Concrete Calculations in a Nut-shell. With 1909 L.C.C. Regulations. Edited by Joseph T. Pigott. 8vo. Lond. 1921. 1s. 6d. net; 1s. 10d. by post. [L. & F. N. Spon, Ltd. 57, Haymarket.]
The Structural Engineers' Pocket-Book. By Ewart S. Andrews, B.Sc. 8vo. Lond. 1921. 18s. net. [B. T. Batstord, 91, High Holborn.]

MINUTES. XVI.

At the Sixteenth General Meeting (Ordinary) of the Session 1920-21, held Monday, 20th June 1921, at 8.30 p.m.

Present : Mr. John W. Simpson, *President*, in the Chair ; 56 Fellows (including 14 members of the Council), 38 Associates (including 3 members of the Council), 4 Licentiates, 1 Hon. Fellow, 3 Hon. Associates, and numerous visitors. The Minutes of the Meeting held 6th June, having been published in the *JOURNAL*, were taken as read and signed as correct.

The President delivered an Address on the Presentation of the Royal Gold Medal to Sir Edwin Lutyens, R.A. [F.]

Having been invested with the Medal, Sir Edwin Lutyens briefly expressed his thanks.

On the motion of the Hon. Secretary, Mr. Arthur Keen, a Vote of Thanks was passed by acclamation to the outgoing President for the important services he had rendered the Institute and the profession during his tenure of office.

The President having responded, the proceedings terminated, and the meeting rose at 9.15 p.m.

NOTICES.**Special General Meeting, 4th July : Housing Fees.**

A SPECIAL GENERAL MEETING will be held Monday, 4th July 1921, at 8 p.m., when the Chairman will move the following resolutions : -

- (1) That Clause 9 of the Scale of Professional Charges be altered to read as follows : - "In the case of housing schemes and laying out estates special arrangements may be required in exceptional circumstances, but for ordinary purposes the scales of fees are the same as those set out in the Ministry of Health's General Housing Memoranda No. 31, No. 51 D and No. 52 *"
- (2) That the Ministry of Health's General Housing Memoranda No. 31, No. 51 D and No. 52,† setting out the fees payable to architects in connection with State-aided housing schemes, as agreed with the Ministry of Health by the R.I.B.A. and the Society of Architects, be incorporated as an Appendix to the Scale of Professional Charges published in the R.I.B.A. CALENDAR.

* To be obtained at H.M. Stationery Office, price 1d. per copy.
 † The full text of Memorandum No. 31 is printed in the *JOURNAL* for 31st July 1920, pp. 426-28, and of No. 51 D and No. 52, dealing with abandoned or partially abandoned schemes, in the current issue of the *JOURNAL*, p. 187.

ASSISTANT ARCHITECT wanted for East. About 30, single, knowledge of residential design. Commencing salary £600. Apply Box 236, Secretary R.I.B.A., 9, Conduit Street.

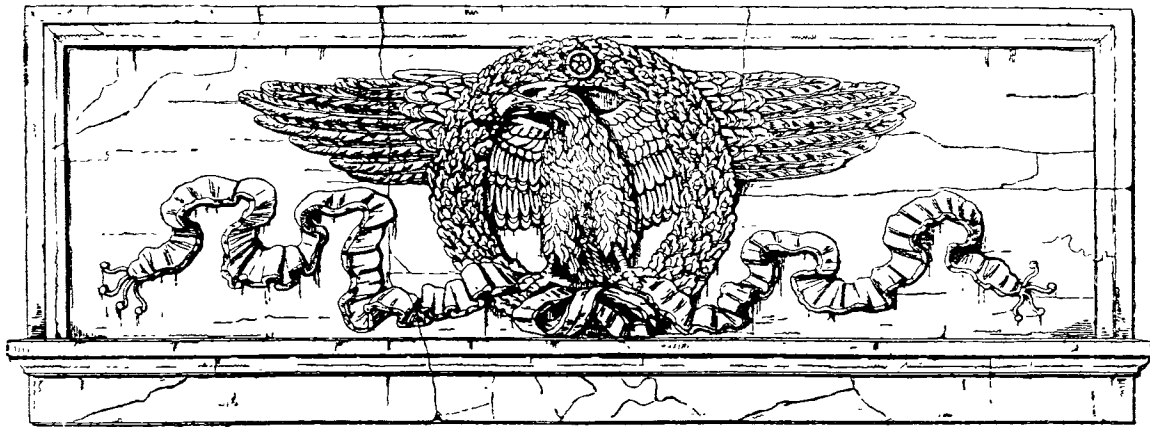
WANTED. One room and share of amenities with architect near Bedford Square or in West End. Apply C. A. Farey, 72, Golders Manor Drive, N.W.11.

APPOINTMENT AT HANKOW. Fully qualified and experienced Architect's Assistant wanted for Hankow. Work will consist of design of semi-public buildings, office blocks, residential flats, etc. Fertility and speed in detail essential. A R.I.B.A. preferred, not more than 40 years of age, of good general health. Good address essential. Engagement for three years in the first place. For full particulars apply to Mr. Cyril A. Farey, 72 Golders Manor Drive, Golders Green, N.W.11.



FIG. 111

PAUL WATERHOUSE, M.A., F.S.A.,
PRESIDENT OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS



THE UNIFICATION AND REGISTRATION OF THE ARCHITECTURAL PROFESSION.

By JOHN W. SIMPSON, *Membre Corr. de l'Institut de France*.

Address delivered at the Royal Institute of British Architects' Conference at Liverpool, 24th June 1921

I HAVE been asked to say a few words about the Unification and Registration of our profession, with regard to which I have been privileged to play a leading part during the term of my Presidency.

As you know, I came into office immediately after the signing of peace in 1919, and found myself at the head of a Council of whose activity and energy it is impossible to speak too highly. With such an instrument at my disposal, and the support and goodwill of an extraordinarily loyal profession at my back, it seemed clear that the time had come to attempt that reconstruction of our organisation which had long been felt necessary. There was much latent dissatisfaction, especially among the younger men. It was felt that had the profession been able to speak with a single voice, we could have made it heard with far more effect than we did during the war, and in the initial stages of national reconstruction. Architects were divided into two main groups engaged upon more or less the same work, and these, though not perhaps actually hostile to one another, were in a position of rivalry. Instead of bringing their united weight to bear on subjects of importance to the profession, their force was dissipated in desultory efforts, sometimes not even in the same direction. The Royal Institute and the Society were harmful to one another, and the lack of a single and representative headship paralysed all attempts of the profession to intervene in public matters with the effect to which its numbers, and its importance in our social system, entitled it. The Institute itself needed knitting up far more closely with its offspring, the Allied Societies.

This want of harmony of which I have spoken was, however, but relative and superficial. The profession, as I have just said, is extraordinarily loyal, very free from jealousy, and ready and willing to work together for the common good. We have only to look for a moment at the divisions which ravage other liberal professions to see, with a justifiable complacency, that we are already far more advanced than they towards the ideal of unity; that our task is, in comparison with theirs, a light one; and that we are actually on the verge of achieving such a solid and effectual organisation of British architects, as exists in no other profession in the world. It is a great and inspiring thought. The accomplishment is within our reach at this moment. Let us put aside any small differences of opinion as to methods, and make one final, courageous step—all together—to make the Royal Institute of British Architects the single organisation for the whole profession. The effort is well worth while. We are already unique—the greatest, most effectively organised, body of architects in

the world. In no other country has our profession attained such authority as the Royal Institute has achieved in this. It controls the whole architectural education in the Universities and Schools of the Empire : dispenses great honours : ennobles the great architects of the world by the award of the Royal Gold Medal : sets the standards of remuneration of professional conduct, of examination, for all architects of the Kingdom : and, after revolutionising the conduct of architectural competitions, is now able to, and does, dictate just and reasonable terms for its members to every Government and Municipal authority with regard thereto.

With Unity must come Registration—the closing of this great profession, whose proper practice needs long and costly training, to the unqualified quack. I do not propose to await the dilatory methods of Parliament, before getting Registration in hand. True, we shall need an Act to legalise it, and as soon as the final touches are put to Unification, we must get our Bill drafted, and push it forward. But it may take some time to get it through both Houses : and there is no reason why we should not set up the Register at once, with our own Registrar, and have a machinery in working order to which the Government will only need to give legal confirmation. It will supply the strongest possible evidence that the thing we ask for is needed, is practicable, and that reputable architects are unanimous in demanding it.

Matters have moved so rapidly during the past two years, that it may be convenient, at this moment, to recall the steps by which we have advanced to the point at which we now find ourselves.

At the very first meeting of my first Council, it was resolved, unanimously, to make a fresh effort to unify the profession : a resolution which was acclaimed by the whole professional press. Next, a General Meeting of the Royal Institute appointed representatives of every architectural body in the Empire, of the different classes of the Institute, of the Assistants Union, and of architects unattached to any Society, to form a Committee which should proceed to organise the Unification and Registration of the profession. This Committee was naturally a very large one. It met for the first time, an occasion which will I think be marked hereafter as historical, on 20th July 1920 : and appointed as its Chairman the President of the Royal Institute, and as Vice-Chairman the President of the Society, with the Hon. Secretary of the Institute as its Hon. Secretary. I take this opportunity of acknowledging with profound gratitude, the loyal support I have received from these two colleagues, Sir Chas. Ruthen and Mr. Keen. The hard work these gentlemen have done is known but to few, but it has entitled them to the hearty thanks of their profession.

The proceedings of the Committee were notable for complete, and perhaps unexpected, absence of discord ; they there and then set up a Sub-Committee to work out details, and elected its members, to the number of nineteen. Two alternative proposals were discussed and referred to the Sub-Committee : the *first*, the absorption of all architects into one great body : the *second*, the federation of the existing bodies, and the formation of a central Council of their representatives.

With no loss of time the Sub-Committee set to work, the record of their discussions forming a substantial volume. On 8th April they produced the expected report on the machinery for working out the two alternative proposals, which have become known as " Scheme A " and " Scheme B." In order to prevent delay, this Report was communicated at once to all members of the parent Committee, so that they might be able to consult their constituents upon it, before meeting to receive it formally.

The main Committee met again on 12th May last, and proceeded to discuss the Report. It is worth noting that this Committee has adopted the methods of the new diplomacy, approved of—but not followed by—the Peace Conference. Their meetings have not been private, but open to the press, with the result that the whole course of their discussion can be followed in the published reports. The result has fully justified the procedure.

After full debate, the principle of " Scheme A " was adopted, *nemine contradicente* : and the following resolutions were passed :—

- (1) That the principle of Scheme A—namely, the bringing of all the Architects of the United Kingdom into membership of the R.I.B.A.—be adopted as the basis for unification.
- (2) That the matter be referred to the Sub-Committee to consider details and report to the Main Committee.
- (3) That the Committee recommend the Royal Institute to draft such alterations to its Charter and By-laws as may be necessary to comply with the principle of Scheme A, adopted this day by the Unification and Registration Committee, and to confer with the Council of the Society of Architects as to conditions of membership.
- (4) That six additional representatives of the Allied Societies be selected by the Chairman and Vice-Chairman from the members of the Main Committee to serve upon the Sub-Committee.

The effect of these resolutions is that the Society of Architects has agreed to amalgamate with the Royal Institute, and form one great Organisation; subject only to satisfactory arrangements with regard to classification.

The Council of the Royal Institute immediately accepted these resolutions, appointed a Committee to draft the alterations in the Charter and By-Laws needed to give effect to them, and directed a conference with the Society to arrange details.

In the meantime, the Associates of the Institute had met Mr. Keen and myself to talk over the position, in so far as it concerns their own class. As you know, a scheme had been prepared for fusion of the Royal Institute and the Society in 1911; this proved abortive by reason of the opposition especially of the Associate class, which now consists, practically, wholly of men who have passed the Examinations. I felt therefore that they had a right to be consulted as to their views, before we went too far. It is pleasant to record that a high note of responsibility was struck at this meeting. The great importance of the movement was fully recognised, and the fact that some self-sacrifice was necessary by members of the Royal Institute in order to attain the end in view. I am convinced that we have the Associates behind us in our efforts.

The President and Secretary of the Society, with Mr. Sadgrove, their Past-President, have, since that, met the Royal Institute Committee, and agreed general lines with them.

It is felt that it is undesirable to make any serious alteration to the Associates class. A certain number of undoubtedly qualified members of the Society will join us as Fellows of the Royal Institute, others will join a new Class of "Members R.I.B.A." in which we propose to incorporate our own Licentiates. Members of Allied Societies, on the report of their Councils, will be admitted to the same Class, also unattached qualified men after scrutiny by the Council of the R.I.B.A. In order to strengthen the Associates class, we propose to institute a special examination for "Members" desiring admission thereto—from Associates they can proceed to the Fellowship subject to the present qualifying requirements. The "Members" class is to be closed after a certain limited period of invitation, and will thus expire in course of time, leaving two permanent degrees of membership of the Royal Institute—the Fellows, and the Associates. During their existence they will have voting powers, of what exact degree is not yet determined.

Such is the general outline of the situation at the present date. The details have still to come before the Council, but it is well that you should know how far we have come along this long road—a road with far less numerous obstacles than we once feared. I do not hope that everyone will be entirely satisfied with everything proposed. There are always some who hesitate to take the necessary step, always some who criticise and raise objections—very useful people they are, too. But it is only by the sacrifice of some of our own pet views—we are all ready to sacrifice the views of others—that we shall attain real solidity and unity. We have never been so near it as on this 24th day of June 1921. The finishing touches only are wanted to complete the structure we have together raised, with such pains and mutual forbearance. Who shall dare take the responsibility of wrecking—on any selfish, any personal grounds—the Temple of Concord we are erecting, not for ourselves, but for the future good of those who follow us?

DISCUSSION ON THE FOREGOING ADDRESS.

MR. HASTWELL GRAYSON [F.] (Liverpool) said the President was quite right in saying that what had taken place in the period he had reviewed had been far and away the most important on matters architectural that had ever taken place, and they owed a great deal to him. He thought two things very greatly in Mr. Simpson's favour were: (1) that he had got the Institute more into touch with the provinces, and incidentally the provinces more into touch with the Institute; and (2) he had advanced registration a stage further. In the provinces they were convinced registrationists long before they were in London, but registration seemed hopeless without unification. They all felt that unification must be put in hand. No one liked it, but it was absolutely necessary. The recent discussion in Parliament on the Dentists' Bill showed how everything depended on unity. One of the things the President had done was to get into touch with the Associates. It was absolutely necessary to carry the younger men, who were a strong and live force. So far as he understood the proposals, the Associates and younger men generally in the provinces would think very much as the Associates who recently met the President and Mr. Keen. They were extremely indebted to Mr. Simpson for initiating the Conference, and for giving them so lucid an explanation of a subject which bristled with difficulties. If they could get registration through in the next six or eight years he (Mr. Grayson) would be very well content.

MR. GILBERT FRASER [F.] (Liverpool) said he always felt that the serious trouble, which seemed now to have disappeared, in connection with unification was the Society of Architects: it was very pleasant indeed to know that the Society had practically agreed to throw in its lot with the Royal Institute, and make one headquarters and one governing body. He thought on behalf of the Liverpool Society of Architects, he was justified in saying that they in Liverpool would give whole-hearted support, because they were all very keen to see unity in the profession and to see themselves enrolled with the governing body.

MR. H. T. BUCKLAND [F.] (Birmingham) said they all realised that registration involved the roping in of the whole of the profession. It looked rather like a man who had been convinced that he had got a disease which had to be remedied, and as soon as he was told he was to take the medicine he began to job. He thought they would find that that would be the case with a large number of members of the Institute, particularly the Associate class. He thought it deplorable that any responsible architects should sign their names to such a letter as had recently appeared in the professional Press. Two of the signatories of that letter were Vice-Presidents of the Institute. He did not call it cricket that men who had been associated with the Committee which had prepared the scheme of unification should write a letter like that to the Press, a letter which could not fail to do harm. If the scheme went through, as he heartily hoped it would, they would all have to acknowledge a very great debt of gratitude to the President for the work he had done in connection with the matter.

MR. THOS. R. MILBURN [F.] (Sunderland) said that they in the North were very pleased with the unification scheme. The only difficulty that appeared to him was the distinction between Members and Associates, the absence of sufficient reward for work, and the expense of education.

PROFESSOR S. D. ADSHEAD [F.] said the members of the Council of the Institute appreciated what the President had done to bring this matter to the very satisfactory issue which he had set out. It seemed they had come to two interesting points: one was a stage in the procedure where it must be left to very careful diplomacy as to arranging

terms with the Society of Architects, and he thought the best thing they could do was to leave it with those who were dealing with it without disturbing the negotiations at this stage; and the second one, which was more important still, was gently to remind the Associates that in the past a great deal of opposition had come from that body, and that, if there was a unanimous wish on the part of the whole profession generally to bring about unification in so far as they possibly could, the Associates should approach the matter in a conciliatory attitude.

MR. STANLEY HAMP [A.] said the Associates' Committee had sat once, and were now waiting to receive suggestions or help from the Associates throughout the country. They would meet again next week, and it was hoped that the provincial societies would, as far as possible, give their views, so that they might, in drawing up the report to be received by the Associates, represent fully the feelings of the Associate class. He was quite sure that any suggestion brought before that Committee would be very carefully considered and the proposal would come forth with the unanimous support of that Committee. It was hoped that all the Associates would accept the verdict and support the decision. The whole matter would be thoroughly thrashed out and the interests of the Associates would be taken very seriously to heart. Most of the Associates had worked and studied hard to pass the examination, and that, perhaps, was one of the great reasons why the Associates were anxious that the honour they had gained through their hard work should not be lightly or unduly sacrificed.

MR. ARTHUR KLEN [F.] referring to the letter which had appeared in the Press on the subject of registration, said he was quite at a loss to understand the purpose of that letter. It was totally inaccurate in its facts, and he could not see why it had been put forward. He had written a reply which would be sent to the leading societies. In the first place the letter said the proposal was to bring all architects in to the Institute, which was quite incorrect. The intention was to invite all qualified architects to make application to enter the class for which they were qualified. The letter went on to say there was no reference made to registration in the Report issued by the Committee. As a matter of fact, the subject of registration was referred to again and again, and it was pointed out clearly that steps had been taken. Therefore it was, in his judgment, totally inaccurate and misleading, and ought never to have been written.

MAJOR H. C. CORLETT [F.] said there was one point only in which he was particularly interested, because he did not represent any body or party in the United Kingdom. He would like all members of the Institute, of the Society, and all men who were architects but were members of no society, to realise that there was an Empire, and that there were Dominions beyond the seas which had architects who were members of the Royal Institute amongst them, and they wanted in those Dominions to realise unity quite as much as architects did in this country.

THE PRESIDENT, in reply, said the unanimity of the meeting did the profession enormous credit. There was no other profession in which people of diverse views would discuss a question without an atom of bitterness, and with a whole-hearted desire to attain the one end they had in view. He did not attach much importance to the letter which was sent to the papers, because there were always people who hesitated; but so long as they all reached the desired end it did not matter how they started. They might not be able to meet every little objection—it was not at all likely that everybody would agree to everything—but they would all agree on the main things which mattered, and with a little spirit of give and take and self-sacrifice he was sure they could adjust such minor differences as existed.

OFFICIAL ARCHITECTURE.

By MAURICE E. WEBB, D.S.O., M.C. F.]

Read before the Liverpool Conference of Architects, 25th June

IN accepting an invitation to address this Conference upon the subject of "Official Architecture" I did so with considerable reluctance, well knowing that it is a thorny subject. At the same time it is one which must be faced both by architects in private practice and by those who are employed as architects by the Government and municipalities all over the country. In any discussion which may follow this paper, which is limited by order to 15 minutes, we shall all remember that any grievances which private architects may have against the architectural bureaucracies that are now increasing in numbers and size are due to the system and not to the individual. I am not sure that the official architect is not in many cases the person with the greater grievance, as he is frequently employed to do work at a salary altogether incommensurate with his ability and the importance of his work.

It is clearly open to every man to choose between the risk of making for himself a practice or entering into a salaried contract with a public body. The Royal Institute has a clear duty to perform in the case of either, for we must see that every avenue is kept open for the young architect, by competitions or other honourable means, to make for himself a private practice, and also that the terms of employment of architects by public bodies are fair and equitable and that the men are qualified to perform the duties expected of them. But beyond either of these it is the duty of the Royal Institute, for the good both of the public and of the profession, to do all in its power to assist in promoting the finest architecture. At the present time I think I am on safe ground in saying that not only architects but everyone who is interested in the cities in which they dwell are all over the country becoming alarmed at the enormous growth since the war of Architectural Departments in official bodies, and are asking themselves whether this is going to make for the best architectural results. Evidence that the public is becoming genuinely interested in the architecture of their cities is shown by the growing membership of the London Society, which was formed in recent years by Londoners to watch over matters which affect or may affect the amenities of their city. The best known and the largest of these public departments is, of course, the Office of Works, now controlled by a new and sympathetic First Commissioner in the person of Lord Crawford, an Honorary Fellow of this Institute. I quote this department as it is, I believe, the instigator of official architecture in this country, and what the Office of Works does to-day municipalities will do to-morrow.

This department of State was founded in 1852 for the maintenance of public buildings, royal palaces, royal parks, etc., and as time went on it was entrusted with the design and erection of certain public buildings

of a special character, such as post offices. I think it will be recognised that under any form of government some such department is essential for this maintenance and repair work, for preliminary surveys and the supervision of estimates and contracts and general administrative duties. Of recent years, however, the Office of Works has shown signs of exceeding these duties. But during the war, owing to the need of conserving and regulating the supply and use of building materials, the Office of Works had many other duties thrown upon it—*e.g.*, the designing and building of factories and the provision of various arrangements for our fighting forces in England and France. No architect was ever heard to grumble at their taking over such work during that difficult time. That they did the work well, though at a cost which will never be known accurately, is admitted, but, with one or two exceptions, I do not think the credit for it ever filtered through, as far as the public is concerned, to the individual designers: and that, to my mind, is one of the principal objections to official architecture, upon which I will touch later.

The point we are considering at the moment is that these developments resulted in an increase of staff of from 384 in 1913 to 581 in 1920, and in the estimates for the ensuing year it has risen to 997, nearly three times the pre-war number: while in one year, 1919-20, the salary list for this class of employee alone had risen from £278,000 to £455,000. Some of this post-war increase is, of course, due to housing, of which the Office of Works and other municipalities have endeavoured to secure the lion's share—work which can hardly be said to come within the sphere of a State Department in normal times, and will no doubt be dropped when the need for more houses is over. Dr. Addison was the pilot of these schemes. Now that the Government have dropped the pilot it is to be hoped that the course is clear for private enterprise again to take the helm. Many of us think that this work should not have been undertaken by the Government, and that they have placed a needless burden on the taxpayer by doing so. The enormous increase in staff in the Office of Works is reflected in the establishment of similar but smaller staffs all over the country. For instance, I understand that in this city the whole of the housing is being carried out officially. Nearly every County Council or municipal authority of any importance has followed the lead of the Office of Works and set up departments to deal with housing: housing directors, assistant directors, commissioners and other new officials have sprung up like mushrooms. Are they really necessary, and when the need for housing is over what will become of them? Is not the danger very real that other architectural work will be found for them at the taxpayers' expense? Already there are signs of this happening in London, though I believe the present need for economy has for the moment nipped some ambitious schemes in the bud. A recent Cabinet Order, I understand, laid it down that the Office of Works should act for all the

departments of State except the three fighting forces, but already, almost before the ink with which that Order was written was dry, designs were prepared in the department for a Royal Air Force College at Cranwell. Their design for a pylon at Hyde Park Corner will not soon be forgotten, and I believe that designs have also been prepared for a building to extend the accommodation of Somerset House on an adjoining site. A great building for the Ministry of Pensions is actually in course of erection from their designs. Recently, since the Government has declared foreconomy, it has, I believe, been decided to give up the architectural or building departments of the three fighting services and hand over all building work required by them, as well as the other departments, to the tender mercies of the Office of Works. What that means you can guess. If the Office of Works decide to keep all new work in their own office, it means an enormous extension of official architecture, further increases of staff, and a very serious blow to the practice of private architects in this country. These are all portents of what we may expect, and we may further expect a similar sort of expansion of the duties of other official architectural bodies all over the country, with the consequent increases of staff and salaries of which the taxpayer has had considerable experience recently in other cases.

In the time at my disposal I have only been able to touch very broadly on the growth and expansion of the Office of Works as the prototype, and have avoided any details which might lead into the more thorny by-paths of acrimonious discussion rather than the broad highway of general principle to which I have tried to adhere. The broad questions before the Conference are these: First, do we as architects believe that the finest architecture is produced, or is likely to be produced, by a system of private enterprise or of State officialdom? It would be possible to say a great deal on the unfair competition which arises when architects have to compete for work with corporations and municipalities who have the power and money behind them. It would be possible to say even more on the hardships which architects suffered during the war by reason of the enforced stoppage of private work, and since the war owing to the ridiculous restrictions on so-called luxury buildings, which have done more than anything else to handicap the return to normality in the building trade: but these are largely matters of past history now, and the question I have asked is the one that really matters, and in which we may expect the public to take real interest. I am glad that this topic should be raised in this city, because you have here the two great buildings of Elmes and Scott which help to make it famous, both of which are the product of individual genius, and both of which gave the opportunity to young men, by open competition, of making their mark in the world and of placing their names on the roll of England's great architects. Could either have done this, working as part of a Government or municipal machine? That is a question not for me but for this Conference to answer.

The next question I should like to ask the Conference to consider is this: What part does official architecture play in assisting the profession to raise the standard of education in architecture? There is a golden opportunity, but has it been taken? In France the winner of the Prix de Rome is on his return given some building of public importance to look after, just a sufficient start for a young man entering on his life's career. Here in England I have not heard of any Government or Municipal scheme of this sort. Again, I am glad that this question arises in Liverpool, as it was in your school under Professor Reilly that Mr. Bradshaw, the first English Prix de Rome winner, received his architectural education. To help men of this calibre when starting by giving them independent positions of trust under the local authorities without interfering with their private work would be, I submit, of great benefit to the country and of great honour to the officials who originate it.

One last question. Is there not a danger lest the great incentive of competition be lost in an official architecture? Most men who are men have ambition to excel. In any art an artist who is worth his salt believes in his work and is proud of it. He likes to have it recognised as his. He resents it being labelled L.C.C. or Office of Works. I cannot help thinking that any system which does that is, *ipso facto*, bad, and I believe that the time will come when the Royal Institute will have to insist that any member of the Institute who works for a firm—and many big firms now, as you know, have large architectural staffs—for a Government Department or for a Municipality, must only do so on the understanding that his name is attached as the designer of the building, and that he is properly recognised as its author. Again, I am glad that this point should be raised in Liverpool because you have here one of the finest examples of modern commercial buildings in the world in the Cunard Building we are to see to-day, and although I feel sure there is an architect's department in this shipping organisation for administrative duties, there has been no attempt to obscure in its officialdom the names of the distinguished architects of their Liverpool offices—Messrs. Willink and Thicknesse. Where in my opinion the officials who had the control of the whole of the site of this and the adjoining buildings made a mistake was in allowing the three to be designed and placed as they have been. Here was an opportunity for official architecture to function in a legitimate way and lay down the broad principles upon which this site, the gateway of England from America, was to be laid out. Americans, at their first landing in England, would then have been spared the conglomeration of towers and domes which display no sign of any attempt at composition and have no relation with each other or anything else.

This paper is but a rudimentary sketch of my thoughts on Official Architecture: it is for you to express an opinion on the effect of the growth which such architecture may have upon our art; it is for you to

protest against its growth if you think fit or, if you prefer, to stimulate it. Whatever your decision is, it will carry great weight among your professional brethren in London, and if you can make it known to a wider and more important public I believe it will have important results. It is, at any rate, a subject of whom the First Aid Nurse would say "Give him air." I have endeavoured to do so without raising a storm. If there are any official architects present, as I hope there are, they will perhaps answer the questions I have raised, realising always that it is a difficult task to read a paper dealing with two branches of a tree which spring from the same root and grow different-coloured flowers. It would be simple to a botanist; to an architect it presents a problem which in many years has found no satisfactory solution.

Mr. W. E. WILLINK [F.], in opening the discussion, said Mr. Webb admitted it was appropriate that there should be qualified men to attend to architectural problems which occur in connection with any great organisation, and they all admitted that was the case. The great question was, was it good that official architecture should be conducted as it appeared to be going to be conducted in future? It must be remembered that all those public affairs, whether municipal or Parliamentary, were governed by people who were elected; they had their own views as to how things should be done, and they were not, unfortunately, guided by those who had professional experience or high professional standards. The first thing that entered the mind of the ordinary man when he had to decide whether a building should be put up by an official or a private architect, was the question of money. Was it not cheaper to have work done by the official architect? The London County Council a few years ago had a difficulty with regard to one of its jobs, which cost a good deal more than it ought to have done, but there was another job which cost less than it was expected to, and the loss on the one was put against the gain on the other, and the two were shown together. That made it extremely difficult to arrive at any question of cost. People who worked for Government departments worked very differently from those who worked for private individuals, and once a man was employed on Government work or official work it was extremely difficult to get him out of office for a long time after he was really required. There was very little doubt that all Government offices, without exception, were very much larger than they ought to be, and consequently they were more expensive. The experience during the war of bad management in high quarters was such that the nation ought to be wary of the danger of professional work done in a bureaucratic manner. There was another question which came into the mind of the elected man, and it was this: If a number of schools, a post office, houses, or even lavatories, were to be erected, was it not better to have them all done by one man who by his experience knew what ought to be done in technically fitting up such places? That, he thought, had an element of truth in it. The solution of the question might very well lie in collaboration: he could not see why it should not be possible to utilise the experience of the Office of Works, or any other official architectural department, in the details of the work, which might not be solved in the best way if put out to a private architect. He thought the meeting might, reasonably and properly, pass a resolution to the effect that the Conference views with deep and increasing anxiety the development of the official architect.

Major H. C. CORLETTE [F.] said he thought they should deal with the matter more from the point of view of the private citizen who was suffering from official architecture, and they might arrive at some means by which they could persuade the electors that it would be in the interests of

the public at large if some other method were devised by which public buildings were put up. If they attacked the question from the point of view that it was uneconomic he thought they would get the public to understand a good deal more of what it meant to them than if they attacked it from the point of view of architecture pure and simple.

Mr. H. L. BECKWITH (a member of the Liverpool Corporation) said the Liverpool Corporation had increased the work which had been given out from the Corporation, but a great deal more work might be put out, to the benefit of everybody and the community at large. It was very fitting that such a resolution as had been referred to should be passed by the meeting, and he was sure it would receive sympathetic hearing by the Liverpool Corporation.

Professor ABERCROMBIE [A.] said that one section of Mr. Webb's Paper seemed rather to confuse housing schemes with the question of official architecture. They were not there to criticise the housing scheme, but the employment of architects under that scheme, and he thought the Royal Institute did not take as strong a line as it might have done at the outset. The Royal Institute got a schedule of prices and charges arranged, but they did not see that that matter was carried out as it ought to have been done, and enforced on the Local Authorities by the Housing Commissioners.

Professor S. D. ADSHEAD [F.] said there was no doubt that the present was an opportune moment to take the matter in hand, and the profession should do so in no uncertain manner. They must first deal with it themselves, and make up their minds as to what they wanted, and then take the public into their confidence. If they could get the public behind them they would have done something really practical in getting architectural work back into their own hands and in putting the Office of Works in the place which it occupied some fifty years ago.

The following resolution was formally moved by Mr. Willink, seconded by Major Corlette, and unanimously carried: "That this Congress views with deep and growing apprehension the methods of the Office of Works and other official bodies with regard to the designing of buildings to be erected by public funds." It was decided to forward the resolution to the Council of the Royal Institute to deal with in London.

BUILDING CONTRACTS.

Paper and Discussion at the Liverpool Conference.

MR. SEARLES-WOOD, in opening his Paper on "Building Contracts" at the Liverpool Conference, stated that at a Conference between representatives of the Royal Institute of British Architects, the Society of Architects, the Surveyors' Institution, the Quantity Surveyors' Association, the Institute of Builders, and the National Federation of Building Trades Employers, held at the R.I.B.A. on the 9th May, the President of the Royal Institute in the Chair, it was Resolved "That a new Form of Conditions of Contract between Employers and Builders should be drawn up for general use in England and Wales." Mr. Searles-Wood went on to say that in view of this Resolution it was thought that a discussion on Conditions of Contract would be of interest to the Conference. His Paper consisted mainly of extracts from Captain E. J. Rimmer's Paper, "Legal Difficulties in the Administration of a Building Contract," read before the Royal Institute in March, 1919, and published in the JOURNAL R.I.B.A. for June of that year, the Paper dealing principally with the various Forms of Contract used during the war. Mr. Searles-Wood said that the

R.I.B.A. Lump Sum Contract gave the architect's view of what the Conditions of Contract should be. It stood to-day as the accepted form which had been found to work satisfactorily for forty years. That some form of Lump Sum Contract must be found if the building public was to undertake building schemes was certain. All the other forms referred to in Capt. Rimmer's Paper had been tried during the war, with the result that their clients had found building so expensive that work was practically at a standstill. In conclusion, Mr. Searles-Wood quoted the resolution passed by the Conference above mentioned at their second meeting, viz. :—

The R.I.B.A., the Society of Architects, the Surveyors' Institution, the Quantity Surveyors' Association, the Institute of Builders and the National Federation of Building Trades Employers, are together giving their attention to the preparation of an agreed Form of Conditions of Contract for the Building Trade to be applicable to England and Wales. Their consideration of this leads them to feel that it would be wise to enlist the co-operation of all employing bodies and other interested parties including the State. They recommend the bodies above-mentioned to ask for assistance in this, and, to this end, to request the Government to appoint an independent Chairman, who shall be assisted by two Assessors, one of whom shall be an architect appointed by the above-mentioned architectural bodies and the other a builder appointed by the above-mentioned Builders' Associations, to form a Tribunal; this Tribunal to convene a Conference composed of the already appointed representatives of the above-mentioned parties, together, if necessary, with representatives not exceeding six of any other bodies, to whom shall be entrusted the task of preparing the document as far as possible by agreement, and the Tribunal shall have referred to them for final decision any points of difference.

Mr. Searles-Wood explained that the reason for asking the Government to appoint the Chairman was to endeavour to have the Departments of State and the Municipal Authorities represented on the Committee which will draw up the Conditions of Contract, by which means it was hoped that the Conditions of Contract will be recognised as Standard Conditions, and any departure from the Standard Form will have to be justified. It was, of course, impossible to make the Conditions of Contract compulsory without an Act of Parliament, and it would not be possible to get such an Act. But a strong position could be made for the Standard Contract if the Government representing the public interests and the great spending departments of the State joined in the preparation of it.

The CHAIRMAN of the Meeting said they were fortunate in having a contractor with them, and he would ask Mr. Costain to open the discussion.

Mr. R. COSTAIN said it was with a certain amount of diffidence and a certain amount of satisfaction that he responded to the invitation to open the discussion. The reading of the Paper had enhanced this satisfaction because Mr. Searles-Wood had embodied so excellently worded, so far-sighted and so exhaustive a summary as that which Captain Rimmer had read to the Institute, and it was satisfactory to find that so much progress had been made towards arriving at a new form of contract by general agreement. It would be recognised by all that a matter of

this kind was a question of points of view, and he took it that the object of the architect in drawing up the form of contract was to secure the employer against having to pay for the execution of what was carried out by the work—a body of workmen might be done by direct labour, what was unreasonable amount of money. The contractor looked at it from the other point of view, and what he wanted to know was: How much money was going to be left for him after the work was carried out and all the costs paid. Between these two gentlemen, the employer on the one side and the contractor on the other, the architect came in. But the architect had a much greater responsibility than was laid upon him in the Paper. Mr. Searles-Wood had suggested that the architect was the gentleman who made out intermediate estimates, but he suggested that the architect was the man in whose mind the building was first conceived, and in order to have that idea of his carried out for the money the employer was prepared to find, the architect must secure some contractor who would undertake the work. The contractor must know, he desired to know, the things which he had got to do, what it was going to cost, and what he was going to get for it. The ideal form of contract would make the contractor a co-partner with the architect, because the architect had not the ghost of an idea what would turn up in the course of carrying out the work, and as the architect was so much in the dark, how much money was the contractor to do, he submitted that if the architect was despondent, as of course he was, of securing for the employer a fair deal, he would take every possible step to see that sufficient information was given to the contractor in his drawings, specifications and quantities, and also in the carrying out of the work, so that no greater burden was put upon the contractor than the contractor might reasonably expect in the preparation of his estimate. Mr. Searles-Wood stated that for forty years the Royal Institute of British Architects' Contract had worked satisfactorily. He (Mr. Costain) admitted that in ninety per cent. of cases perhaps it did work satisfactorily. In the case of reasonable men there was no reason why the standard form should not work satisfactorily. There had often been cases in which the blame had been on both sides, and in other cases it had been due to unreasonableness on one side or the other, and he was prepared to admit, if they would allow that there were unreasonable architects, that there were also unreasonable contractors. If this document had really worked so satisfactorily why should it have been revised on such a scale as it had been? Fair conditions as between the employer and the contractor were in the interests of the employer because the latter, taken as a whole, paid for the unreasonable conditions embodied in forms of contract. That would be driven home very clearly by two instances he would recall, in which officials of public bodies were concerned. In one case he went as a member of a representative body, and in the other case he was on his own behalf, and in each case the clerk to the public body did his best to convince the architect of the public body that the public body as an employer over a period of years would be bound to pay for any unreasonable conditions that the architect insisted on putting in his form of contract or specification. His (the speaker's) point was that the architect was acting on behalf of the employer in securing such a contract as was necessary to ensure that the employer had fair value for his money, and that unreasonable conditions of contract would be paid for by the employer over the period of time covered by the conditions.

The CHAIRMAN thought the subject was one for intimate discussion by a small Committee, and seeing that the matter was at present under discussion between contractors and architects, and that a Special Committee had been appointed to discuss it, he thought they might usefully leave it in their hands for the present.—The proceedings then terminated.

THE R.I.B.A. CONFERENCE AT LIVERPOOL.

By W. R. DAVIDGE [A.].

"ONE of the greatest successes the Institute has ever had!" "A capital and most successful meeting!" Such were the expressions one heard on every hand in connection with the Liverpool meeting. Our hosts—the Liverpool Architectural Society, headed by Mr. T. T. Rees and Mr. Gilbert Fraser, and the Hon. Secretaries, Mr. Richard Holt and Mr. Ernest Gee—had spared no effort to make the meeting go off well, and from the very moment of our arrival we were made to feel thoroughly at home.

The Lord Mayor of Liverpool formally opened the Conference on Friday, 24th June, by an official reception at the old Town Hall. The President, Mr. John W. Simpson, in a graceful speech of thanks to the Lord Mayor and Lady Mayoress, voiced the feelings of the members when he said that it came as a delightful surprise to see the fine old Town Hall, with its magnificent reception-rooms, originally designed by Wood, of Bath. The late King Edward, in visiting Liverpool, expressed the opinion that these rooms were the most magnificent suite he had seen in the whole of Europe.

The meetings of the Conference were held in the Walker Art Gallery, and opened with an important paper* by our President, outlining the steps that have been taken towards securing the unification of the profession. He was also able to announce that the negotiations with the Society of Architects had met with a most favourable response, and that a provisional agreement had been reached on the general principle of the absorption of the Society within the Institute. The President's address was followed by a racy paper by Professor Reilly on "Publicity and Propaganda,"† which called forth a most breezy and spontaneous discussion, of which probably the outstanding features were some very charming banter between the representatives of the Liverpool University School of Architecture and the Architectural Association, whose champion was Mr. W. G. Newton, and a delightful speech by Mr. J. Hubert Worthington.

Lunch at the Liverpool University Club was a very pleasant function; but in a day so full of event little time was left for the after-lunch cigarette. One had to rush off to catch the boat across to Birkenhead, where the motors were ready to convey the party to Port Sunlight and elsewhere.

The Mersey is Liverpool's most lusty lung, and a trip across the busy river is always a tonic. The architectural visitor will, of course, criticise the relative merits of the three giant buildings that line the landing-stage. The "Liver" Building, with its gigantic "liver" bird on its lofty perch, looks down upon the quiet and restrained dignity of the newer Cunard Building, and quite overtops the dome of the Mersey Docks and

Harbour Offices; but each has its own symbolism in this great city, and each in its measure typifies the driving force, the dignity and the wealth of the City of Liverpool.

Across the river the great shipbuilding yards are at present idle; but Birkenhead looks much as ever, and its contrast with Port Sunlight serves to throw the latter into brilliant relief.

A visit was first paid to a large wartime factory near Bromborough, where all the processes that go to make up margarine were explained; and the party then proceeded to Port Sunlight, where the new Art Gallery, now nearly completed, and other recent buildings were inspected, and, no doubt, to some extent criticised. Interest in this pioneer settlement is always great, and at each visit one is more and more struck by the courage and indomitable will of our Honorary Fellow, Lord Leverhulme, who so long as thirty years ago made such a village possible, and at the same time provided such an invaluable object lesson to the world at large. The firm of Lever Brothers acted up to their reputation and provided the hundred or so members of the Conference with a most hospitable reception and a most substantial tea, at which the thanks of the visitors were voiced by Mr. Wm. Woodward, and responded to by Mr. J. L. Simpson, the Architect to Messrs. Lever Brothers. A photograph of the party was taken before leaving the Garden Village, and gave rise to considerable merriment, which helped the holiday feeling that was in the air.

The R.I.B.A. banquet at the Midland Adelphi Hotel, Liverpool, in the evening, was the crowning function of the visit, and the speeches reached a very high level indeed. The President, Mr. John W. Simpson, although somewhat fatigued by an exhausting day's work, was in the best of form, and his genial chairmanship produced equally genial spirits in all present. Among such a host of good speakers, it is difficult to particularise, but the honours of the evening rested with our hosts and the representatives of the City of Liverpool, all phases of civic life being represented from the Water Engineer to the Stipendiary Magistrate and the Vice-Chancellor of Liverpool University. Mr. H. T. Buckland, Vice-President, in speaking to one of the toasts, expressed the hope that the City would entrust architects with even a larger share of public work on behalf of their fellow-citizens, and frequent allusion was made in the speeches to the many magnificent public buildings which Liverpool owns, from St. George's Hall, designed by Elmes—the "finest building in Europe"—to the palatial Adelphi Hotel, of which Mr. R. Frank Atkinson is architect, and many describe as "the finest hotel in Europe."

Saturday morning, 25th June, was given up to discussions in the Walker Art Gallery on papers by Mr. Searles-Wood on "Building Contracts,"‡; Mr. L. B. Budden on "Architectural Education,"† and Mr.

* The Unification and Registration of the Architectural Profession, *ibide.*, p. 497.

† To be published in the next issue.

* Extracts from this Paper are given on pages 503-4.

‡ To be published in the next issue.

Maurice Webb on "Official Architecture,"* each of which produced a capital discussion.

Mr. Maurice Webb's paper was a fair and impartial statement of the case for and against official architecture and was one with which all sides must have agreed. In the debate which followed, the trend of the discussion was undoubtedly in favour of opening the larger works as far as possible to the private practitioner, not especially for his benefit, but to secure the best results in each case.

The afternoon was devoted to a visit to Liverpool Cathedral, under the skilful guidance of its architect Mr. Gilbert Scott. The situation of the new cathedral, on the top of St. James's Mount, is undoubtedly the finest in Liverpool, but one cannot help feeling that the site is unduly cramped and will eventually need to be surrounded with further open space and greenery. The view of the completed Lady Chapel and Chancel, as seen from the public gardens at the South end of the Cathedral, shows how fine the massive red-brick outline of the building would be, if everywhere it were seen from similar surroundings. Rather less than one half of the main building is in hand, but enough has been completed to show that in scale and boldness of conception Liverpool Cathedral when completed will be unsurpassed.

From the Cathedral, the party made its way to the new Cunard Building, so well described by its architect, Mr. W. E. Willink [F.] in his paper before the R.I.B.A. in February last. The planning and fitting up of this magnificent office building much impressed the visitors, and, thanks to the kindness of Mr. and Mrs. Willink, tea was provided at the conclusion of the visit in a cool and attractive room on the top floor. The Cunard Company are to be congratulated on the beautiful building which they now occupy, and Mr. Willink, and his partner, Mr. H. A. Dod [J.], on the successful completion of a great work carried out in spite of the immense difficulties which arose during the war.

The weather during the visit was phenomenally warm, and in the cool of the evening it was very pleasant to find ourselves as the guests of the White Star Company on board a tender steaming down to the mouth of the Mersey. The view of the docks and buildings on both sides of the river, seen from such a pleasant vantage, with further light refreshments in due course, formed a fitting close to the day's exertions, and after rounding the Crosby Lightship the party turned homeward with mingled feelings of pleasure and regret that the Conference was so near its end.

Many of the party had to leave for home, but a few who stayed will have pleasant recollections of the hospitality of the Lord Mayor and other friends who did so much to make the Institute visit to Liverpool the success it was.

Thanks to them all.

W. R. DAVIDGE.

OPENING OF THE CONFERENCE

The Programme of the Conference, details of which have already appeared in the JOURNAL, was carried out in its entirety. Members were present from all parts of the country, the greater number arriving in Liverpool on the 23rd June. The following is a complete list:

Professor Patrick Abercrombie [J.] and Mrs. Abercrombie, Mr. Jos. Addison [J.], Professor S. D. Adshad, Vice-President R.I.B.A., Mr. R. Frank Atkinson [F.], Mr. J. L. G. Butler, *Loc. tot.*, Mr. W. S. Beaumont [J.] and Mrs. Beaumont, Mr. H. L. B. Kew, *Loc. tot.*, Mr. J. P. Bennett [J.], Mr. J. W. Bewell [F.], Mr. O. D. Black [F.], Mr. Chas. A. Bladen [J.], Mr. Q. M. Blahm [F.], Mr. Geo. L. Blshaw and Mrs. Blshaw, Mr. L. Gordon I. Bower [J.], Mr. James S. Brantwell [J.], Mr. C. H. L. Bridson [J.], Mr. W. G. Beck, *Loc. tot.*, Mr. Herbert I. Buckland [F.], President British Architectural Association, Mr. Lionel B. Budden [J.], Mr. J. H. Burton, *Loc. tot.*, Mr. Ralph H. Byrne, M.R.I.A., and Mrs. Byrne, Mr. Kenneth Cameron [J.] and Mrs. Cameron, Mr. Campbell-Liverpool Society, Mr. Wm. I. Clark [J.], Mr. J. R. F. Cole [J.], Mr. Henry R. Collins [J.], Major H. C. Conner [F.], Mr. A. H. Crayford, Mr. P. H. Curdall [J.], Mr. H. A. Dalrymple [J.], Mr. W. R. Davidge [J.], Professor A. C. Dicks [J.], Mr. W. Glen Doherty [J.], Mr. Edwin J. Delf [J.], Mr. Harold Dod [J.], Mr. W. B. Fletcher, Mr. C. B. Flockton [J.], President, Sheffield Arch. Society of Architects, Mr. Harold F. L. G. Gilbert Fraser [F.], President, Liverpool Architectural Society, Mr. Ernest Goss [J.], Mr. H. B. S. Gables [J.], Major J. Walter Gidley, Mr. Haswell Grayson [F.] and Mrs. Grayson, Mr. W. Curtis Green [F.], Mr. I. Griffiths, Mr. Harold Griffiths, *Proceedings*, Mr. H. V. Gutzmer, Manchester, Mr. I. Stanley Hall [F.], Mr. H. Austin Hall [F.] and Mrs. Austin Hall, Mr. Stanley Hamp [J.], Mr. J. Harcourt, Mr. Charles W. Harris [F.], Mr. W. Alexander Harvey [F.], Mr. Wm. Haywood [F.] and Mrs. Haywood, Mr. Francis H. Healy [F.], Mr. A. L. Hoar [F.], Mr. E. H. Hoar, *Loc. tot.*, Mr. Gordon Homan, Mr. A. W. Hommes [F.], President, Manchester Society of Architects, and Mrs. Hommes, Mr. S. G. Howitt [F.], Mr. L. Percy Hinde [F.] and Mrs. Hinde, Mr. I. Holt, Mr. Richard Holt, Hon. Secretary, Liverpool Architectural Society, and Mrs. Holt, Mr. Francis Howett [F.], Mr. A. J. Hop [F.], Mr. G. A. Humphreys [F.], Mr. J. P. Hunter, *Loc. tot.*, Mr. Francis Jones [F.] and Mrs. Jones, Mr. Ivor Jones [J.], Hon. Secretary, South Wales Institute of Architects, Mr. Arthur Koch, Hon. Secretary, R.I.B.A., Mr. A. Ralph Kitchley [J.], Mr. Kenneth Liverpool Society, Mr. L. Kitchen [F.], President, York and East Yorkshire Architectural Society, and Mrs. Kitchen, Mr. William H. Law, Mr. Philip H. Lawson [J.], Mr. I. Alwyn Lloyd [F.], Mr. Ian MacAlister, Secretary, R.I.B.A., Mr. J. H. Motowin, *Loc. tot.*, Mr. S. A. H. Mackey [J.], Mr. F. Mortall Maddox [J.], Mr. Thomas R. Milburn [F.], President, Northern A.A. and Mrs. Milburn, Mr. Lile Morley [F.], Dr. Col. S. Polham Morter [J.], Mr. W. G. Newton [J.], President, A.A., Mr. F. W. Nicholson [J.], Mr. James O'Donnell, President, R.I.A.I., Mr. G. D. Oliver [F.], Mr. W. I. Plume, *H.A. J.*, Mr. H. L. Paterson [J.] and son, Mr. Reginald Peck [J.], Mr. H. C. Portsmouth, President, South Wales Institute of Architects, Mr. Edgar Quinlan [F.], Mr. I. T. Rees [F.] and Mrs. Rees, Professor C. H. Rolly [F.], Mr. Frank Rimmington, *Loc. tot.*, Mr. S. S. Robinson [J.], Mr. H. J. Rowse [J.], Mr. Albert Schofield, Mr. G. Gilbert Scott [F.], A.R.A., Mr. I. F. Shepherd [J.], Mr. George Simpson, *Loc. tot.*, Mr. John W. Simpson (President, R.I.B.A.), Mr. J. Dewlin Smith, *Loc. tot.*, Mr. Norman R. Stanley, Mr. M. Calvert Smith [J.], Mr. John Swarbrick [F.], Mr. Sam Taylor, Mr. Percy Thomas [J.], Mr. H. Cwin [J.], Mr. Reginald Wainwright, *Loc. tot.*, Mr. E. M. Ward [J.], Mr. Maurice L. Webb [F.], Mr. W. L. Willink [J.], Mr. Percy Wilson [J.], Mr. William Woodeson, *Loc. tot.*, Mr. Wm. Woodward [F.], Mr. Hubert Worthington [J.], Dr. Percy S. Worthington [J.] and Mrs. Worthington, and representatives of the Press.

Mr. T. T. Rees [F.], Past President of the Liverpool Society, and Messrs. Richard Holt and Ernest Gee [J.], Joint Hon. Secretaries of the Society, were in attendance at the Midland Adelphi Hotel on Thursday evening, to give information to newly arrived members, and an unofficial dinner was held at the hotel. A tastefully produced programme, supplemented by a beautifully illustrated guide to places of interest in Liverpool, was the Society's special contribution to the Conference.

The formal opening by the Lord Mayor and the Lady Mayoress (Alderman and Mrs. E. Russell Taylor) took place on Friday morning at 10.30 at the Town Hall.

The Lord Mayor, in delivering his address of welcome, said that among the many pleasurable duties of his office, few had afforded him more pleasure than in welcoming the members of that Conference, whom he might call brother craftsmen, for he himself had served articles in an architect's office, though he had not adhered to the profession. He hoped the Institute's visit to Liverpool would yield good results. Liverpool had not many relics, but it had many compensations from an architectural standpoint, one of which was the Town Hall—the late King Edward had said that although he had been in every town hall of note in Europe he had never seen a more magnificent suite of

* See page 501-2.

rooms than these. Then there was that extremely fine building, St. George's Hall, and also, now slowly rearing its stately head, a building which was a pleasure to the citizens of Liverpool—the cathedral, which they in Liverpool and many people outside considered a magnificent piece of work. He hoped their deliberations would result in benefit to the profession, and that when they left the city they would carry away pleasant recollections of it.

The PRESIDENT, Mr. JOHN W. SIMPSON, in reply, thanked the Lord Mayor and Lady Mayoress for the kindness with which the members of the Conference had been welcomed on behalf of the Corporation. Such courtesies extended by the great municipalities of the country to the institutions concerned with the arts and sciences were the occasion of some of the most important functions in the social life of the day. It was not without a sense of honour and of pleasure that they found themselves received in that wonderful suite of rooms. They congratulated the Lord Mayor and Corporation of Liverpool on their possession of it. They would like to take it back with them to London as a small souvenir of their visit. (Laughter.)

The rest of the morning's proceedings and the afternoon visits to Brompton and Port Sunlight are described in Mr. Davidson's notes at the head of this report.

THE CONFERENCE BANQUET.

The Conference Banquet took place on Friday evening at the Adelphi Hotel, and was presided over by the President, Mr. John W. Simpson. Among the special guests were the Lord Mayor and Lady Mayoress of Liverpool, the Mayor and Mayoress of Wallasey, the Mayor and Mayoress of Birkenhead, the Town Clerk of Liverpool, the Vice-Chancellor of Liverpool University, the President of the Liverpool Engineering Society (Mr. I. R. Davidson), the City Engineer (Mr. John A. Brodie), the Chairman of the Walker Art Gallery (Alderman John Lea).

The PRESIDENT, in proposing the loyal toasts, said some reference should be made to the King's magnificent action in visiting Ireland, and he proposed to send a telegram to His Majesty expressing their loyal admiration.*

The LORD MAYOR OF LIVERPOOL, who proposed "The Royal Institute of British Architects and the Liverpool Architectural Society," said he felt that the Conference being held in Liverpool was not only a compliment to the city, but reflected glory on it. He was delighted that an Institute of such magnitude, whose ramifications extended practically over every quarter of the globe, should have come to their city. They had a whole-hearted appreciation of the work the Institute had done since its foundation, and hoped that work would continue, because he understood the object they had in view was not only the strengthening of the Institute, but to bring into its fold other bodies akin to it but not quite associated with it. The time of amalgamation, he said, was with them, and, provided it was used right, amalgamation was a sign of strength. He recognised in the Institute an organisation of vast importance, because it was instilling art into the minds of many who were not artistic. It had endeavoured for many years past to improve the appearance of cities—and many cities needed improvement, not for lack of knowledge, but possibly for lack of funds. The Institute was quietly demonstrating to the thinking public that a thing of beauty, even in a grimy city, might be a thing of joy, and if that was continued it would, in a quiet way, have done great good to the country. The Institute had had associated with it many renowned men, but he ventured to say that one of the greatest compliments that had been paid to it was the election of one of its past Presidents to the honoured position of President of the Royal Academy. One of the Institute's most cherished privileges must be the annual election of an architect to receive His Majesty's Gold Medal in recognition of the high merit of his work. Another notable feature of the Institute's work was its educational side. The poorest boy leaving an

elementary school, if he were inclined to art, could mount the ladder by winning scholarships and receiving assistance from the Institute and win the honourable position which the President now holds. With regard to the other part of the toast, "the Liverpool Architectural Society"—that body had a great record. It was one of the oldest architectural societies, having been founded as far back as 1848, and it was very interesting to him as a Liverpool citizen to find that, during that long period, they had worked up to a position which he believed was not only the envy of England, but also the envy of the world so far as the School of Architecture and Applied Art was concerned. (Applause.) Forty years after the foundation of the Liverpool Architectural Society, an Art Conference was held at Liverpool, and a suggestion was made by a then Associate of the Royal Academy that he would like to see such a school. Mr. (now Sir) T. G. Jackson read a Paper in which he put forward his idea, and many in the architectural profession thought he was a little mad or a little wild. In 1892, however, only four years afterwards, an Art Conference was again held in Liverpool, and the question of an architectural school was again discussed. The discussion bore fruit, and two or three years afterwards Sir T. G. Jackson came to Liverpool to open that school. That very day (continued the Lord Mayor) purely by accident he had come across a pamphlet which incorporated the paper Sir T. G. Jackson had read at the opening of the school. The final clause read: "Such was my dream of an ideal School of Architecture and Applied Art—thirteen years ago a Utopian dream, as it then seemed—and such is the ideal school which I hope and venture to believe it is your intention to create here at Liverpool. It is a scheme to which every true son of Art will from his heart wish a successful issue, and one which if it succeeds cannot fail to have an unparalleled influence on the history of art in England." (Hear, hear.) Liverpool was very proud of that school, and although he had no wish to flatter anyone he could not pass over the mention of the school without alluding to a gentleman whom Liverpool was proud to own, Professor Reilly. (Applause.) The school was one of the first in England, and was world-famous. Its record was one to be proud of, and reflected the highest credit upon those connected with Liverpool and with the University. During recent years two of their students—one of whom, H. C. Bradshaw, he knew very well—had won the blue ribbon of architecture. Incidentally he might observe that he had admired very much the front page design of their menu card that evening, and he congratulated the designer, whoever he was, and hoped he might be a student of the Liverpool School.* Liverpool had been often spoken of as non-artistic, but in those days when Sir Thomas suggested the school, Liverpool came to its assistance by granting £1,000 per annum, and this had since been increased. Might he suggest that, as they had many officials there who had influence in the great city of Liverpool, after this Conference the school might be able to obtain a little more help.

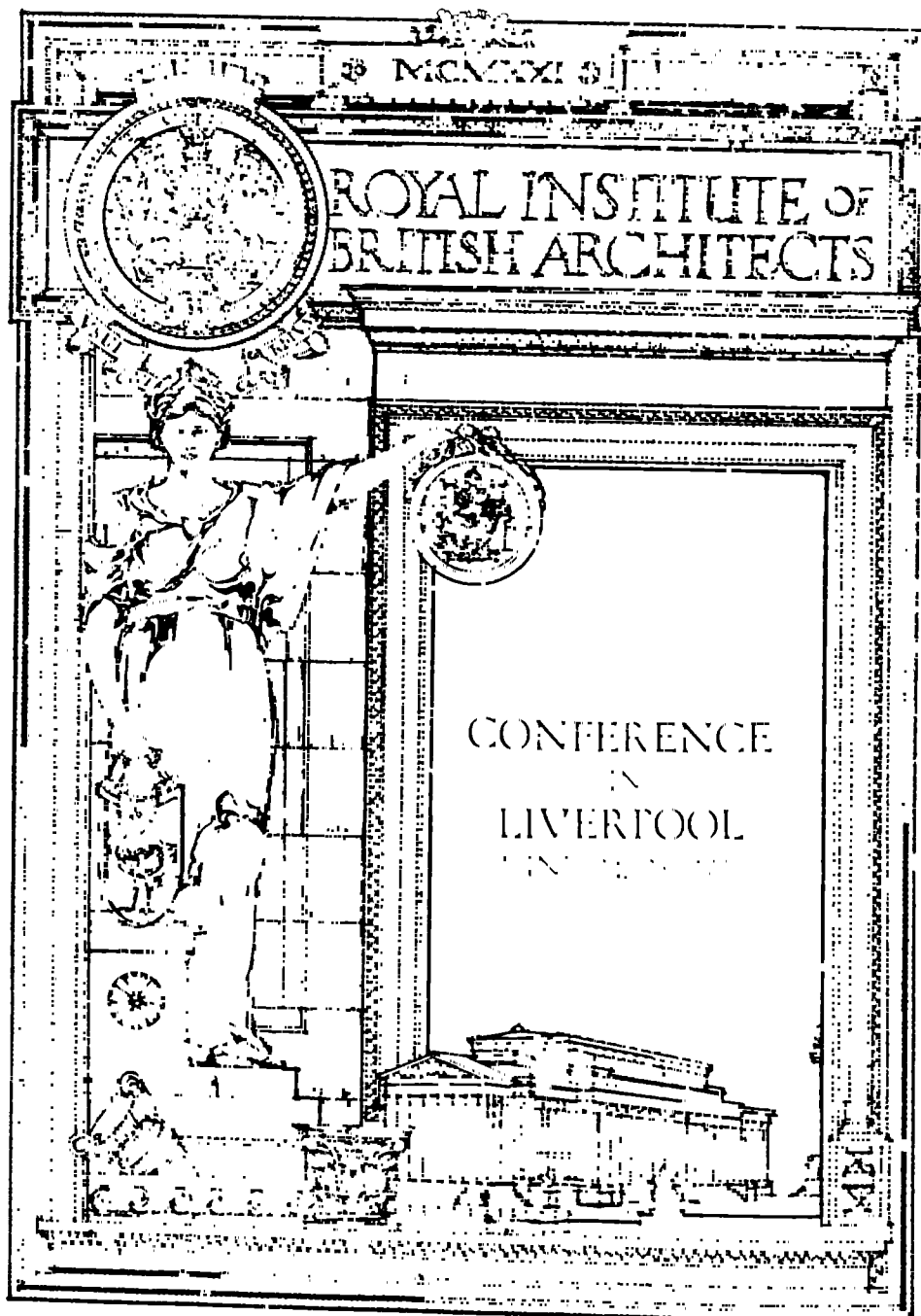
The PRESIDENT: If I were replying to a personal compliment it would doubtless be proper of me to make a modest disclaimer of the charming things the Lord Mayor has been good enough to say. But I am in the happy position of being able to accept those laudatory commendations without so much as a tremor or a blush. I can accept them, sir, and I can tell you that they are fully merited. (Laughter.) The Royal Institute is indeed a very great and a very important organisation, and its ramifications extend throughout the Empire. The more important the Royal Institute becomes—and we have every hope of making it in the near future a far greater organisation than it even is at present—the greater is its opportunity of rendering help to those devoted men who constitute the corporations and municipalities of our great cities. It is one of the chief functions of the Institute to give

* The President's message, with His Majesty's reply, is printed on another page of this issue.

* Mr. Donald Bradshaw, the author of the design, is a student of the Liverpool School of Architecture.—Ed.

advice on schemes for the improvement of their cities, and its organisation is always at the disposal of municipalities, corporations and Government departments. It is fitting that the Royal Institute should hold this, the first of its Conference after many years, at Liverpool, this great city of architecture, a city whose municipality bequeathed to its successors the finest edifice in Europe. It is a legacy of which, I doubt not, the municipality will take every care to see that its surroundings are fittingly bestowed. The Liverpool Society, to which the Lord Mayor has made such appreciative reference, is one of the oldest of the thirty or more children of which the Royal Institute is so proud. It is a very flourishing, a very energetic and a very successful organisation. Connected with it is the School of Architecture, of which we as well as Liverpool are proud (hear, hear), for the wings of the Royal Institute spread over all the schools; protecting them, encouraging them, and watching their progress and development with pride as a parent watches the progress of his offspring. We do not pretend that the Liverpool School is entirely the child of the Institute, but at any rate it is adopted by it. Liverpool is a city which has every right to be proud of its position among our cities. It possesses a magnificent edifice, St. George's Hall. It possesses in part, and will presently possess in its completion, that wonderful cathedral which we owe to the delicate fancy of our friend Mr. Gilbert Scott. (Applause.) It has also shown the way in the commercial buildings, the Cunard, the Royal Liver, and the other fine buildings that form that admirable group at the pier-head. And I do not know why I should not mention this delightful hotel in which we now are. (Hear, hear.) I am not sure that the architect of this building, with its delightful, deeply studied detail, is not, unconsciously perhaps, doing a great work towards the education of the public who come here and, perhaps without knowing exactly why, receive a pleasing and comforting impression of things being just as they ought to be. (Hear, hear.) I am not speaking of creature comforts, but of the architecture. Architecture is a matter of everyday life. It is of great importance to our social life. There is nothing worse than architecture which leaves a depressing impression on people's imagination. As Mr. Clutton

Book said in one of the lectures at the Royal Institute lately, there are some streets which have a distastefully depressing effect on those who pass down them. That is because they are badly designed and badly laid out, and their



Donald Eric Isaac, 1921

width not being equal to the height of the buildings, they are dull. These streets have a dispiriting effect upon those who pass along them, and for that reason architecture is a thing not merely of art but of utility, a matter which leaves an impression upon our physical as well as upon our spiritual

life. It is really a matter of hygiene. Some people imagine that architecture is something that they cannot understand, that it is a mystery, something which is produced only by people who have been trained to understand it. But if the public would put that impression aside and remember that they are as well able to understand architecture as to understand the message which is given them by any other artist, it would be a great help to the public themselves. Nobody says: "I do not understand literature and therefore I do not read a novel." They take the message given them by the author, although they do not understand the exact process by which he combined the words and phrases which give the impression he designed to give. They accept the message for what it is. And, if they are wise, the public will accept the message of the architect for what it is, without troubling to analyse it too closely. That it is the thing that gives them a pleasant impression is enough. As their knowledge increases they will not doubt, as in the case of a musical composition, gain added pleasure, all that is worth this observation. The ordinary British subject seems to go about without some strange, exciting thing the wonderful old Scotch and saying: "Having lived that so long, I wonder for they did not die." The cosmically violent understanding is because it is a violent thing. If people would only regard a new building in much the same thing has been removed from the mind, a strange which the new architectural style is a new world with they would find it in the same pleasure. They would want to see it as they would enjoy the same of the present, to understand it in the past. We would like to know to see a new way in which is waiting for the new style, the old style, a building language, a language, spoken only by highly educated people who understand that such. And then it is a thing that can be read by all who will take the trouble to open their eyes and see and understand it. And thus we are encouraged to go to the Lord Mayor and Lady Mayoress for a presentation of the building. The extraordinary kindness of the Lord Mayor and his wife to the Institution, on those occasions which have so warmly greeted be used it reveals the sympathy of the great corporations with the aims for which we are working. We thank you very sincerely for the courtesy and hospitality you have shown us. Applause.

Major General F. S. P. Boyd, President of the Liverpool Architectural Society, responding on behalf of its Society, said they felt honoured that the Royal Institute should have selected Liverpool in which to hold the first of its revived conferences in the provinces. They in Liverpool had very much to offer from the headquarters of the Royal Institution. It was this reunion of themselves and their friends, and the opportunity for such interchange of views as had taken place that morning, that would make the conference in the provinces a success. They were proud of their own proud of their enthusiasm for their city, and proud of their Lord Mayor and Lady Mayoress. The Lord Mayor was naturally so closely allied to their own, and his sympathy and support could be counted on for any scheme in the furtherance of which they were interested. His confidence had been expressed regarding all work, and their scientific knowledge and efforts were due to their President, Mr T. E. Rees, and Mr H. D. and other members.

Mr. H. T. BURKE and [?] (President of the Birmingham Anti-Slavery Association) promised the first of our "Our Cause." They led with the mass guests, but especially the long-headed assembly, all of them tall, long-nosed, serious men in business suits. They had been in the very big city for more than a month, but the anti-slavery people, in that they realised that liberty was a thing that mattered. He wanted to enter their sympathy and their cooperation in a way which was attractive and attractive from the point of view of sympathy, and was a good deal out American something extremely of a public affairs. An architect might be a minority capable of determining wonderful buildings, but the great democracy was getting him and yet to do so and yet to do so and yet to do so.

ings. It came within the province of a municipal body to give a lot of work to architects. They were constantly engaged in carrying out public work, but very often that public work was not placed possibly in the best way that it might be. He did not think that the judges of what was good were necessarily a city council. Eminentl} qualified as they were to give an opinion upon matters of finance and practical utility, they often failed when it came to exercising a question of taste. Good taste was a quality that one was not exactly born with. Then great danger was the man who said: "I know the thing I like, therefore that is the thing I am going to vote for." America had recognised that, with the result that she had formed a number of what are known as Art Commissions. When any great civic improvement was in hand it was not left to the decision of the city council but was referred to an advisory commission to give an opinion upon it, and then it went back to the city council for a final decision. This was a wise course, because upon such a body or commission would be elected people of taste and people of particular qualifications who enabled them to judge whether a scheme possessed the qualities which made it good. In Birmingham they were very keen on this, and were endeavouring to get such a commission formed, but it could only be done with the cooperation of a great-sounding body, the City Corporation. If they could elicit their sympathy then they would be able to form such a commission. He would put the case in this way. If Liverpool had had an advisory commission at the time when they let out St. John's Square, perhaps the Square would have been what they had at present. He would ask the Lord Mayor if he regarded the Square as a satisfactory development. Laughter. When a new building scheme came before the city council, qualified architects would wish that their designs should be submitted to such a committee as he had suggested, so that expressions of opinion might be obtained and referred to the design and its suitability for the particular position.

Hear, hear. That periodically applied to the case put forward by the Corporation. Obviously when a plan was to do certain things in connection with public works frequently advised on all sorts of things, such as the layout of streets, and the tendency was to refer such matters to decide whether a particular building or development was a good one. All they asked was that a commission should be formed to which all these schemes should be referred, so that they might come before people specially trained to give an opinion on them. Another point. He hoped he would be forgiven for taking advantage of the present opportunity for advancing something which while it might be for the good of architects, was not put forward for that reason. It was the general good and the beauty of their cities that they were seeking to promote, and this was one of the ways in which these desirable ends might be achieved.

DR ADAM F.P.S. (Vice-Chancellor of the University of Liverpool) responding on behalf of the guests, said he was very glad that Mr. Buckland had been bringing his collection of Art commissions. They were very proud of their city, but they had a number of awkward angles in the way of buildings, and were rather ashamed of them. During the last few months since he had been elected Mayor, so that the public opinion upon their street architecture. Nothing better had been done than the series of houses on the street architecture at Liverpool by Prof. or Reilly, A.D. 1890. They had been of poor value mainly consisting in decorations in the matter of good architecture, and the time was now when to startle in Liverpool, and the times sang, said by Mr. Buckland. That over the road had been spoken very kindly of, but most of them agreed with Prof. or Reilly that one of the three things—there was a touch out of proportion to the others—the time do not hang together as they ought to do, and such magnificent size. Mistakes like that ought not to be repeated. He

hoped that Mr. Buckland's words had fallen on fertile ground, and that they would see in Liverpool, in the future, public buildings, and also buildings put up by great corporations, carefully studied before they were allowed to be erected and alter the proportions of the streets and the general effect of the buildings upon our great thoroughfares. As Vice-Chancellor of the University, he should like to say a word of appreciation for the help of the Institute and the cordial co-operation it had given to the University and the University School of Architecture. The University was working on the same lines as the Institute; it was keenly interested in the advance of architecture, keenly interested in the advance of all professional subjects, and it was a pleasure to feel that it had the sympathy of the Institute, and to know that it was willing to help them forward and to make this and other provincial and University schools a strong feature in the development of the architectural profession. As one who was not an architect, might he say how throughout his life he had been drawn to the architects he had known, and had appreciated their breadth of view, their keen interest in art, and their fine intellectual qualities. It was a great profession: it had faced rebuff, and although times were bad, still he thought more and more that, thanks to the broad views of the Institute and the Liverpool Architectural Council, architecture would play a big part in English life in the future. (Applause.)

MR. STUART DEACON (Stipendiary Magistrate) also responded, and entertained the company with an amusing account of his experiences as umpire in an arbitration in which architects were concerned.

PROFESSOR MAYE (President of the University Club) said it had been a great pleasure to them to offer members the hospitality of the Club, because they regarded the architect from a universal point of view as a brother worker. They looked upon work in art as at least as fine and important an expression of the human spirit as work in science. He did not think there was any kind of worker who contributed more to the social good or to the happiness of mankind than the architect did; sometimes also to the misery. (Laughter.) The architect was in a position of peculiar privilege. As an artist when he was asked or he persisted in producing a work of art it was planted in the streets, and everyone was bound to see it. Very often when walking through the streets of their city, he would suddenly feel depressed, the feeling being produced at the sight of certain buildings. On other occasions he felt very much uplifted when seeing, either consciously or unconsciously, a pleasing building. There were many things in a city like Liverpool which were in his opinion breaches of the peace. (Laughter.) If a man made a noise that disturbed the equilibrium of the mind they took him before Mr. Stuart Deacon. But they did not prosecute a man who offended them through the eyesight, an offence which was much more painful to them than the offence through the ears. He wished the time would come when the public would take a severer view of the matter and insist on a higher standard of rectitude and beauty than at present existed. These meetings of architects constituted an occasion of great good omen. He hoped it would be brought home to Liverpool the opportunities that were open to them through the existence of a great and powerful body of trained artists who were at their service. He had been in Liverpool for twenty years, and he said it without any desire to flatter, but simply as an expression of his considered judgment, that he thought Liverpool had a great soul. It was one of the great soul cities of the country. It was a city of fine ideals, of progressive men, of intense local patriotism, but he did wish that the time were nearer when that soul of Liverpool were clothed in a body appropriate to it. It was upon architects that that call fell. He hoped they would be amply supported in the future by a growing public interest in the value of their great profession. (Applause.)

MR. T. TALIESIN REES [F.] gave "The President of the Royal Institute." He was the most energetic President

the Institute had ever had and one of the best of architects. Might he live long to lead them in architecture?

The toast was drunk with musical honours, and the PRESIDENT thanked the company for their kindness and for the excellent way in which, he said, they had rendered that dismal duty. (Laughter and applause.)

Saturday's proceedings, consisting of the reading of Papers by Mr. Searles Wood, Mr. Lionel Budden, and Mr. Maurice Webb, and visits to the Cathedral and the Cunard Building, and a trip on the River Mersey, are dealt with in Mr. Davidge's interesting notes, pages 505-6.

Acknowledgments.

It should be known to members generally that for the success of this Conference our thanks are due entirely to the Liverpool Architectural Society, and in particular to those representatives of the Society who, in the three months preceding the Conference, gave so freely and cheerfully of their time and energy to ensure the smooth working of all the arrangements involved. The programme was a crowded one, and the time was strictly limited, but everything went without a single hitch and with surprising punctuality.

To Mr. Gilbert Fraser, President of the Society, Mr. T. Taliesin Rees, the immediate Past President; to Mr. Richard Holt and Mr. Ernest Gee, the Hon. Secretaries; to the indefatigable band of Stewards—Mr. H. A. Dod [A.], Mr. E. Quiggin [F.], Mr. K. Cameron [A.], Mr. E. R. F. Cole [A.], and Mr. Felix Holt; to Mr. Donald Bradshaw, who was responsible for the beautiful design of the Programme; to Mr. G. Gilbert Scott, A.R.A. [F.], who guided us on our memorable visit to the Cathedral; to Mr. and Mrs. Willink, who entertained us so charmingly at tea on the hottest afternoon of all, we record our grateful acknowledgments.

We have also to thank those hospitable people—not connected with our body—whose kindness and courtesy contributed so largely to the pleasure of the members of the Conference. The Lord Mayor and Lady Mayoress of Liverpool, who received us with so gracious a welcome; the Chairman of the Library and Arts Committee, who lent us his beautiful rooms for the meetings and the Exhibition; the Cunard Steamship Company, who enabled us to inspect their wonderful building; the White Star Steamship Company and their manager, Mr. A. B. Cauty, who provided for us the river trip that made so delightful a wind-up on the last evening; Messrs. Lever Brothers, who with Mr. Ivie Fulton and Mr. J. L. Simpson arranged the visit to Port Sunlight and entertained us so hospitably in the Village Hall, have all placed us heavily and permanently in their debt.

SECRETARY R.I.B.A.

An interesting souvenir of the Conference is available in the shape of a portrait group of some 120 of its members, photographed at Port Sunlight by Mr. Walter Scott, of Bradford. The picture measures 9 inches by 24 inches, and is a really beautiful specimen of the photographer's art. Copies may be obtained from Mr. Scott at 26-30A North Parade, Bradford.

SIR ROBERT ROWAND ANDERSON: AN APPRECIATION.

By A. N. PATERSON, M.A., A.R.S.A., President
of the Institute of Scottish Architects.

From an Address delivered at the Annual Convention of the Institute
of Scottish Architects held at Dundee, 21st June 1921.

IT has commonly been remarked of Sir Rowand Anderson that his force of character, breadth of view, and determination of spirit, together with his powerful constitution would have made him great in whatever sphere his life work had lain. As a lawyer he would have lent weight and dignity to the Bench; a soldier, that field-marshal's baton would certainly have been in his knapsack, and not remained there; a surgeon or physician, he would have been famous as an operator or consultant; a churchman, he had graced a bishopric or the Moderator's Chair. But while these various offices have no doubt their various uses, I make bold to say that as a great architect his life and work were of more value to Scotland than had they been spent in any one of them, and we have therefore cause for thankfulness that, as a youth, he was permitted to follow his natural bent and early transferred from the lawyer's desk to the drawing board.

I have said that Scotland is the gainer. His influence, of course, extends far beyond our borders, both through his works themselves and through the men who in their younger days gained knowledge and inspiration in his office, and whose works in many lands reflect something of the lessons then learned. Yet it remains the fact, somewhat remarkable in consideration of his eminence, that his buildings are all with us to enjoy and admire. And I am not sure but that, in the main, he would have had it so, for Sir Rowand Anderson was first of all a great Scot. The particulars obtainable of his early training are scanty and uncertain, but if the information in this respect contained in the *Scotsman* article on his life are correct, as I have been assured is the case, we know that as an assistant for a time with Sir Gilbert Scott he already showed his ability, and from that a successful career in the South must have lain open to one of his character. Instead, he preferred to return to his native country, and throughout his long life remained a stout protagonist of things Scottish, of the interest and beauty of its national architecture, and the importance to the student of a thorough knowledge of its early examples in relation to the work, however divergent in requirements, of the present day.

If his early training was, even according to the ideas of his time, irregular, it is given to none to belittle on that account our efforts to improve the common opportunities in this respect to-day. Genius and determination such as his will win through in spite of limitations. How he himself appreciated the value of a thorough education is shown by his labours in its cause. He was, indeed, a pioneer in that direction when, in founding the School of Applied Arts in Edin-

burgh in the year 1892, he devoted to its organisation and direction his time and means to an extent little realised to-day, and that, it must be remembered, when still in the full flood of his career as, by general admission, the premier architect of Scotland. These, his works, do follow him even to this present day. The measured drawings of our earlier national architecture which, in middle life, he incorporated in the scheme of the school, it was a chief concern of his latest years to render of wider usefulness, and it is mainly owing to his personal labour and generosity that, despite much initial difficulty and opposition, their publication as the National Art Survey is now in progress, in a form at once so excellent and at a price so moderate as to be within the reach of all. Nor was his appreciation of the value of a sound education confined to that side of it represented by the study of old examples, as was evidenced by his later offer of open bursaries for promoting the study of modern construction.

As a great Scot therefore we honour him; as a great educationist also, but most of all as a great architect. It is needless for me, in a gathering of Scottish Architects, to enumerate the many buildings erected to his design and restored under his direction in all parts of the country. They are known to and admired by us all. He had great opportunities, not only in the importance of the commissions entrusted to him, but in their variety. For in no sense was he a specialist, either as regards the nature or purpose of the buildings undertaken, or the particular styles of architecture employed for any one of these as being best fitted to express his ideas. For him the various streams which, united, form our great Western tradition were his to draw upon at will. With freedom and facility, though always with sane restraint, he did so, leaving untouched only that pure classic which forms the original source of them all. This, whether it was foreign to his cast of thought or, as is more likely, unsuited to the fit rendering of any of the special schemes he was called upon to develop, it would now be hard to say. Thus, while in his churches he expressed himself in Norman, early or late Gothic (though never in the purely English Perpendicular), his Medical Schools and Conservative Club were early Italian, his Caledonian Railway Buildings and Mount Stuart French Renaissance, his National Portrait Gallery French Gothic, and his houses Scottish Domestic. Yet through all there is a personal note. Wherein that lies was well expressed by Mr. Ernest Newton in his Presidential Address on the occasion of the presentation of the Royal Gold Medal to Sir Rowand, when he described, as the characteristic quality of his work, "its evident integrity, each building being thought out for its special purpose with a simplicity and directness of conception which dominates the whole design, the beauty of any particular motif or the careful study of its detail never being allowed undue prominence, each work being eloquent of the requirements and purposes of the building and of his knowledge of and sympathy with the various

may live to see Forbes and Edinburgh competing for the privilege of giving due honour to him whom we remember to-day. For the present it is a source of gratification that the Institute has been able during the last year to secure a worthy presentment of him in the noble bust executed by Dr. Macgillivray, and to know that, though the formal presentation of it was prevented by Sir Rowand's death before the bronze could be completed, he was pleased with it and with the recognition it implied. But for us gentlemen, it seems to me, the Institute is itself his Memorial: it remains for us and our successors to make and keep it worthy of him and of service to our Art and Country.

STATE-AIDED HOUSING SCHEMES.

Architects' Fees : Discussion at the Special General Meeting, 4th July.

A SPECIAL General Meeting, summoned by the Council under By-law 65 to obtain the sanction of the General Body to an alteration in Clause 9 of the Scale of Professional Charges so as to incorporate the Ministry of Health's General Housing Memoranda Nos. 31, 51 D and 52, was held on Monday, 4th July.

The Hon. Secretary, Mr. ARTHUR KELN, having announced that the President was unable to attend, Mr. H. V. LANCHESTER, Past Vice-President, was elected Chairman. In taking the Chair, Mr. LANCHESTER said he accepted the position rather reluctantly, as he had been for many months absent from England and was out of touch with the work.

The CHAIRMAN, in accordance with the notice-paper, formally moved the following resolution:—

- (1) That Clause 9 of the Scale of Professional Charges be altered to read as follows: "In the case of housing schemes and laying out estates special arrangements may be required in exceptional circumstances, but for ordinary purposes the scales of fees are the same as those set out in the Ministry of Health's General Housing Memoranda No. 31, No. 51 D and No. 52*"
- (2) That the Ministry of Health's General Housing Memoranda No. 31, No. 51 D and No. 52,* setting out the fees payable to architects in connection with State-aided housing schemes, as agreed with the Ministry of Health by the R.I.B.A. and the Society of Architects, be incorporated as an Appendix to the Scale of Professional Charges published in the R.I.B.A. KALENDAR.

Mr. JAMES S. GIBSON [*F*] seconded.

The SECRETARY read letters from members protesting against the ratification of the terms set out in the recently issued Memorandum. The following are extracts:—

Messrs. HAYWARD and MAYNARD [*A.*], London: "As architects interested in a housing scheme, we do not consider it fair that the Ministry should allow no out-of-pocket expenses unless the journey involved is over 25 miles."

Mr. L. ROWE GUTHRIE [*A.*], London: "It is very doubtful if the previous scale paid architects. I am sure it does not pay as regards roads and sewers or lay-out."

Mr. N. T. SALMON [*A.*], Wokingham: "The scale for abandoned work and the non-payment of out-of-pocket expenses are so manifestly unfair."

Mr. C. HARROLD NORRIS [*E.*], London: "The new scale is obviously unfair, and the non-payment of out-of-pocket expenses is in direct contravention to Memorandum No. 31, which states that the conditions of engagement of architects shall be those customary in the profession."

* The Memoranda are set out in the JOURNAL for 31st July 1920, pp. 426-28, and 25th June 1921, pp. 487-88.

Mr. CONRAD B. WILLCOCKS [*F.*], Reading:

"As architect for one complete housing scheme and for one-third each of two other schemes, of all three of which schemes it is now proposed to abandon a part, I must very strongly protest against the second resolution, as the proposed scale of fees is most unfair to the profession."

Two points which are especially inequitable are:—
(1) General Housing Memorandum No. 51 D states that previous scales of fees were inclusive scales covering all out-of-pocket expenses, except travelling expenses for journeys over 25 miles from the architect's office.

"General Housing Memorandum No. 31 states that the conditions of engagement of architects shall be those customary in the profession."

"Under the R.I.B.A. schedule of fees, travelling and other out-of-pocket expenses were always charged, and as most housing architects were engaged when General Housing Memoranda 4 and 31 were in force, they should certainly be paid the customary out-of-pocket expenses in addition to the schedule fees, otherwise it is obvious that architects engaged on urban schemes in towns near their office receive much higher remuneration than architects engaged on rural schemes which necessitate considerable travelling."

"(2) With regard to abandoned schemes. It is apparently proposed that the fees paid should be based on one cottage of each type proposed in the abandoned scheme or part of a scheme. Minor modifications in design to avoid monotony in appearance, etc., not to count as a separate design."

"Such fees it is obvious are quite inadequate, and where a design has been modified several times, necessitating several special drawings, the fee often would not cover the expenses incurred."

Under the R.I.B.A. schedule, the customary fee for abandoned work, when tenders had been obtained, was three-fifths of the full fees, and surely for housing schemes where the fees have already been greatly cut, this proportion should not be reduced."

"Resolution No. 1 states that in exceptional circumstances special arrangements with regard to fees may be required, but such a resolution may be of little use, as the court of appeal is not mentioned."

"As a specific example of how unremunerative the scale would be in some cases, I give the following particulars of the number of types of cottages proposed for one scheme where the local authorities required as much variety of design as possible throughout their district. In this example it would appear that the ordinary scale of 5 per cent. on each original design and 2½ per cent. on each repeat should apply."

"(a) Number of cottages in original scheme—140

"(b) Number of cottages for which tenders were signed—44.

"(c) Number of cottages for which designs were prepared and in the majority of cases tenders obtained before the cottages were abandoned—92.

"Number of different designs included in (b)—10.

"Number of minor modifications of the above designs included in (b) necessitating special drawings but not counted as separate designs—11.

"Number of different designs included in (c) additional to those included in (b)—10.

"Number of minor modifications of these designs necessitating special drawings, but not counted as separate designs—8."

Mr. BASH SUTTON [*A.*], Lambourn, Berks:

"The conditions of my employment as one of three architects to a rural district council in a general housing scheme were as stated in General Housing Memorandum No. 31:

"1. * The conditions of engagement of architects shall be those which are customary in the professions . . ."

"It appears, therefore, that the Ministry's Memos

51 D and 52 as applicable to abandoned schemes and out-of-pocket expenses are in direct contravention of Memo. 31, and, if ratified by the Institute, will occasion considerable hardship to many members of the profession and especially to those, like myself, who have been put to great expense in travelling by road to rural schemes at distances up to 25 miles from their offices."

Mr. C. WONTNER SMITH [F.R., London].

"It has hitherto been the custom to base an architect's commission where work is abandoned on a proportion of the recognized fee for the completed work. Seeing that where housing is concerned, the commission has already been reduced from 6 per cent. to 2½ per cent. or less in some cases, Clause 5 of the Institute scale is not unreasonable and in my opinion should stand."

"Considering the very large amount of time involved in preliminary work where housing is concerned—and only those of us engaged upon it know what this means—in my view the proportion is not too great."

"In any case if the general opinion is that it might be reduced, the principle should be adhered to."

"I am given to understand that the Memoranda do not represent the agreement arrived at with the Ministry and therefore should not be accepted in their present form."

"To reduce our remuneration to the extent proposed is calculated to lower the status of the profession."

Mr. GEO. T. BROWN [F.R., Hon. Secretary, Northern Architectural Association]. "Some members of this Association who have State-aided housing schemes in hand object to the proposed fees for abandoned work, but more strongly to the questions of 'Definition of Scheme' and the elimination of all out-of-pocket expenses. In particular there is the case of a local authority having schemes on a number of sites and employing different architects. These architects work quite independently of each other, and when they were appointed on the agreed scale, the only interpretation was that each was in charge of a scheme and would be paid as such. If the new definition is accepted, however, it will mean a pooling of fees amongst all the architects, and is something which they contend was never suggested or intended when they were appointed or accepted the work on the scale as it then stood."

Mr. JAS. T. CACKETT [F.R., Newcastle-on-Tyne].

"I should like to draw attention to an actual case in which I am acting on behalf of three firms who are joint architects for a State-aided housing scheme of some 540 houses. The site for the houses is an exceedingly difficult one, on a bank side, and the position of the scheme at the moment is as follows:—

- "Lay-out plan prepared and approved,
- "Sketch plans for houses approved,
- "Detailed plans for houses approved,
- "Quantities are being taken off by surveyors,
- "Plans for roads and sewers almost complete and quantities being taken off.

"The scale of fees agreed upon are those set out in Memorandum 31.

"The payment for the lay-out plan and sewers will, on this particular site, just cover the actual costs of preparation levels, etc. If the work goes on, the full payment for houses, together with sewers, etc., is £8,902 (assuming an average of £200 per house), whereas if abandoned the payment will only be £560, the difference for supervision practically being £7,669, which is manifestly absurd.

"The amount of £560 will by no means cover the expenses entailed in the work."

"It is true the proposed alteration states that 'special arrangements may be required in exceptional circumstances,' but even under the most favourable circumstances, if Memorandum 51 D and 52 are incorporated in clause 9, would the scale reach the long established ruling laid down in clause 5?"

"If clause 9 is altered as proposed, I am of opinion that

clause 5 will be much interfered with, and will have to be reconsidered."

"I am also of opinion that the terms agreed, apparently by the Institute, as set out in Memoranda 51 D and 52, are ridiculously out of proportion."

Mr. STANLEY J. WILKING [A.P., Norwich].

"(1) Paragraph 2 of Housing Memorandum No. 52 says: 'Memoranda 4, 31, 52 are inclusive scales covering all out-of-pocket expenses.' I suggest this has never been so stated. Rather, by myself and others I have spoken to on this matter, has been placed on the fact that any questions not dealt with in the memoranda on fees would be settled according to the custom of the profession. It is on this ruling that I—and I am sure others—have carried on in good faith, incurring some what heavy expenses in nearly all cases: in fact, those who have visited their work conscientiously and dealt with it by correspondence and otherwise in a business-like way are heavy losers."

"Does the 25 miles mean 12½ out and 12½ home, or 50 miles there and back? In a country like Norfolk this is a very heavy item, as the train service is not only a poor one, but entirely useless for very many parts, involving train and cycle journeys or motor hire."

"(2) Apart from this question of out-of-pocket expenses, the other outstanding feature of this memorandum for abandoned work, as against previous memoranda, appears to be under the heading of House Plans (b), where the same basis, namely 5 per cent. on the first 12, etc., is taken, but fees are only allowed on the separate designs. Thus, in a case of, say, a scheme for 62 houses and where only, strictly speaking, two separate designs are used, would work out at a ridiculously low figure in one case against the other."

"(3) There is no mention of quantities under the heading of 'House Plans.' I presume where these have been finished complete, the full scale would be allowed."

ASSOCIATION OF NORWICH ARCHITECTS' Telegram: "Special Meeting of Association makes strongest protest against non-payment of travelling expenses below 25 miles; grave injustice in small, widely separated rural schemes; also protests against scale for abandoned schemes as inadequate."

Mr. THOS. RAYSON [A.R., Oxford]: "On behalf of the Committee of the Oxfordshire Society of Architects, I protest against the ratification of the latest Memorandum with reference to Architects' Fees."

Professor ADSHEAD [F.R.].

"Although a member of the Committee that met the Ministry, I was only asked to attend two meetings, and I could not take entire responsibility for all that was settled, though I admit to being in general agreement with the scale as now drawn. The real point at issue is as to whether the scale is to be retrospective."

"At the last meeting of the Committee, when Sir Charles Ruthen was in the chair, this question of whether the fees were to be retrospective was very tentatively put forward by me, but the question was not really followed up. This, of course, however, is the serious point at issue, and evidently the Ministry know it, as in issuing their scale of fees now to be ratified, they have stated that the scale would apply in every case, except where an agreement providing for a specific payment for abandoned fees has been made between the local authority and architect, prior to the date of the Memorandum."

"Very few architects have any specific agreement at all other than an acceptance of the terms set out in Memoranda Nos. 4 and 31—an acceptance which has been proved by reason of instalments having been paid in accordance with the terms of these scales. Memorandum 31 makes no reference to any specific scale of fees for abandoned schemes, but includes a clause which sets out that the conditions of engagement of architects and surveyors shall be those customary in the respective professions, for example, generally, such as the conditions prescribed by the R.I.B.A."

and the Society of Architects in the case of engagement of architects.

"This appears to me to be the presentation of the legal aspect of the case, and it will remain for the Institute to decide as to whether they are to uphold the payment of fees for abandoned schemes on the basis of the Institute charge, in the case of agreements entered into previously to the making of this scale, or whether the profession is to be advised to accept a new reading.

"My view is, that the Institute will be well advised to seek a further interview with the Ministry, and have the whole of this question cleared up, as, whilst, as I said at the outset, I think the general fees for abandoned schemes is tolerably fair as regards later undertakings, an enormous amount of work was done in the first instance at very great expense to architects, which will never be paid for, and it will leave them out-of-pocket if this scale of abandoned schemes is retrospective."

Mr. HERBERT A. WELCH [J.] moved as an amendment that the matter be referred back for further consideration. As a member of the deputation—added rather late in the day—he felt the matter very keenly. The Ministry's statement that the terms and conditions set out in the Memorandum had been agreed by the Royal Institute and the Society of Architects was not correct, and it was particularly unfortunate that that communication had gone out to local authorities. He hoped that the Council had protested, or, if not, that they would take early steps to get the matter put right. For the past fifteen years he had had considerable experience of housing matters, and on the recommendation of the Practice Committee the Council nominated him to serve on the deputation which was conducting negotiations with the Ministry of Health on the question of housing fees. At his request Mr. Gibson furnished him with a type-written statement setting out the proposals which before he joined the deputation had been discussed and tentatively agreed between the Ministry and the deputation. He went very carefully into these proposals and discussed with Mr. Gibson certain modifications of them before going to the Ministry of Health. The deputation met the Ministry of Health on 6th May last when the whole matter was discussed, together with the modifications he had suggested. At that meeting, with the single exception of his suggestion as to what should be the real meaning of the word "schemes," the proposals were, in the main, agreed. At the conclusion of that meeting it was suggested that the Ministry should prepare a draft and that some one from the deputation should agree to that draft. Mr. Gibson was appointed by the deputation for that purpose. He learned afterwards—and he was sure Mr. Gibson would not mind his mentioning it—that Mr. Gibson had agreed to the draft with the Ministry, and he (Mr. Welch), as an individual member of the deputation, knew nothing more of it until at a later date he received from the Council what purported to be the agreed terms of the resolutions arrived at by the Ministry of Health, which terms the Council in the meantime had confirmed. He at once wrote to the Secretary R.I.B.A. and to Mr. Gibson stating that the terms as set out did not agree in some vital particulars with what was agreed by the deputation with the Ministry. Dealing with the variations between the printed form as agreed and the original proposals, Mr. Welch pointed out that in the preamble to No. 52 the original draft contained the words "or conditional approval" after the word "approval," but in the paper sent out by the Ministry these words were omitted. Then in No. II. Road and Sewers, sub-s. (i), the word "specifications," which was not in the original draft, had been introduced. It should not have been there, for it was pointed out to the Ministry that specifications would not be prepared at that stage. Then with regard to "quantities," it was explained to the Ministry that the preparation of quantities was no part of an architect's duties, and that it had been inserted in error in the previous memoranda.

The Ministry admitted the error, and agreed that it should come out. Yet it occurred again in Memorandum 52. With regard to par. 2, "In all cases of partially abandoned schemes, etc.," he had no recollection of this having been discussed at all: this was the first he had heard of any reference to "three-quarters of the fees" mentioned in that clause. A further point he wished particularly to make was with regard to No. III. House Plans, par. 3: "In all cases of partially abandoned schemes fees in accordance with the preceding paragraph 2 will be payable for the abandoned work." That was quite wrong. What in fact was agreed was that fees in accordance with paragraph 1, sub-sections (i) and (ii), should be paid. That made a difference of 50 per cent. in the remuneration to be received by architects for abandoned plans. There had evidently been a misquotation or some such mistake—"paragraph 2" should have read "paragraph 1, sub-sections (i) and (ii)." These were the fundamental points of his criticism and were the reasons why he as a member of the deputation proposed that the matter be referred back for further consideration. He could not help feeling that the individual members of the deputation had not received the consideration they had a right to expect. The draft proposals should have been submitted to them before being sent to the Council, so that it might be clear to them that the final draft as agreed was in accordance with their intentions. He submitted that in future, when deputations were appointed, they should act as a body and do the work themselves rather than have it done for them.

Mr. HORACE CUBITT [J.] said that, speaking as a member of the deputation, his recollection was that the Ministry asked the deputation to appoint one among their number to go through the wording of the points raised, and agree them with the Ministry. A vote was taken, and Mr. Gibson was unanimously selected. Therefore it was rather unfair to Mr. Gibson that it should be now suggested that he should do something which it was never intended he should do.

Mr. WELCH said he had no intention of bringing Mr. Gibson's name into the matter. He (Mr. Welch) was appointed, not in an individual capacity but as a member of the Practice Committee, and was therefore responsible to the Committee for what was done. When Mr. Gibson was elected by the deputation to approve the draft, he suggested to Mr. Gibson that as a member specially appointed by the Practice Committee and answerable to them he would like to attend with Mr. Gibson. This Mr. Gibson readily agreed to.

Mr. W. G. WATKINS [J.] (Lincoln) seconded the amendment. The matter, he said, affected him financially to an extraordinary degree. He had been acting for a little over two years as architect to a rural council housing scheme. After a considerable time the local authority, advised by him, selected twenty-one sites, widely scattered over an area of roughly twenty-five miles by fifteen miles. They apportioned the houses to the sites, so many to each site—perhaps two on the least, rising to twenty on the largest site. Lay-out plans were made and paid for according to scale. Four type plans were adopted, the houses to be constructed in pairs according to locality and requirements. Separate tenders were invited for all the twenty-one sites, and applications were received for thirteen different sites, the quantities being sent to the builders for these thirteen sites. Although the four type plans were repeated on every site, there was a considerable amount of work that did not repeat. The sites were purely country sites: there were no sewers, no roads, no water, no gas. Every site had to be visited and treated on its merits: it had to be decided where the water supply should be, how deep the well, how many wells, where the sewer or, in some cases, the cesspool should be—sometimes there was a running stream and a septic tank was possible. They were separate things altogether. He submitted the thirteen sites to the Ministry, and the whole lot were turned down.

quite honestly to the conclusion that this document was an attempt, made in perfect good faith, by the Institute and the Ministry to arrive at a reasonable settlement for the payment of architects for work that had been done in good faith. In the event of this not being accepted as a settlement the view was held—perhaps wrongly—that there would be no redress for any architect whose scheme was either abandoned or partially abandoned except by going to law and establishing his position. [A MEMBER: So much the better.] He had a little experience of the law, and if members thought it was better to establish their claim by bringing a test case, then that was the proper action for them to take. If, on the contrary, after reflection of the whole matter, they thought that some specific terms ensuring payment for services, not at all in accordance with the scale they were perfectly justified in expecting—but payment which would reimburse them for the time expended and for out-of-pocket expenses [.] It does not [.] it was an alternative policy which might be worth consideration. The difficulty of legislating for individuals was insurmountable. The fees that had been arranged from time to time were arranged on a broad basis, and if an agreement was to be come to with the Ministry, it would have to be a national agreement. But hardships there would be. In legislating not only inequities could not be avoided. To speak frankly, it was up to members to tell the Council that they did not want an agreement other than the documents already published. The Council, he was sure, would give most serious consideration to what was said. [A MEMBER: Is it not too late?] He could not see that it was too late. The Ministry had published in No. 71 a statement that it had the approval of the Institute. But that was entirely unauthorised: the Council would never sanction anything of that nature without its having been submitted to and endorsed by the General Body.

A MEMBER: Could not that be cleared up? No. 51 D states definitely that the terms have been agreed by the Institute.

The SECRETARY: Memorandum No. 4 (now in the Institute scale as Clause 9) was agreed with the Ministry and accepted by the General Body and put into the Scale. Then, in response to the Ministry's invitation, the Council agreed No. 31, but the very day that a meeting of the General Body was to be held to sanction No. 31 a message came from the Ministry asking that the document should be withheld as the Ministry had further communications to make on the matter. No. 31 has never been approved by the General Body. Negotiations then took place mainly on the question of abandoned schemes, and the present meeting was called to ratify the terms which are set out in the Memoranda just issued and which the Council have agreed with the Ministry. The Ministry have been informed that the Council have approved and that the matter has now to receive the sanction of the General Body.

Mr. SYDNEY PERKS, F.S.A. [F.], Chairman of the Housing Sub-Committee of the Practice Committee, referring to the statement in Memorandum No. 31 that the conditions of engagement should be those which are customary, said that he had always regarded Memorandum No. 31 as part of the Institute scale. He had been informed that the Ministry's idea was that the customary conditions could not be read into the document because the word "generally" was used. But that was a most unworthy attitude to take up. The Council had authorised the Practice Committee to state a case for the opinion of counsel, and no doubt members would be advised of the result. He asked the meeting to vote against the amendment in order that he might move another amendment—viz., "That this General Meeting of the R.I.B.A. repudiates the scale in Memorandum No. 52."

Mr. WELCH said he thought the suggested amendment too destructive. His amendment to refer the matter back was constructive, and was made in that form because he believed it impossible to get the Ministry to agree to a scale

of remuneration for abandoned work on the basis of Housing Memoranda Nos. 4 and 31 applying thereto the R.I.B.A. Scale fee for abandoned work. He thought better terms could be obtainable by getting a more favourable definition of the term "scheme." He considered the Ministry's idea of considering schemes on various sites promoted by a local authority as one scheme only was a mistake, especially in rural areas. He suggested the following definition: "That in urban districts where two separate sites comprising a scheme are within easy reach of each other, the sites shall for the purpose of calculating the fees payable for abandoned work be considered as one site." He suggested this because in the majority of cases in urban areas the architects employed have had erected a fair proportion of houses and have been paid accordingly, and therefore the comparative loss would not be so heavy. Again: "In boroughs and larger districts where each site is being considered by one or more architects, all such sites shall be dealt with separately on the same basis; in rural areas where sites are scattered the site pertaining to each village or locality shall be considered separately." Then he considered laid one chance of getting better and more equitable conditions, because it was manifestly unfair to architects employed by authorities on a rural scheme to be paid on the same basis as those employed on an urban scheme. The architect of a rural scheme had enormous distances to travel, in addition to which each site had peculiarities such as water, drainage, fencing, and the like, for which there was no standardised method of dealing. Each had to be solved separately.

Mr. GEOFFREY LUCAS [F.] suggested that if they were found to publish the Ministry's scale it should not be published as part of the R.I.B.A. Scale, but on a separate sheet. They did not want to send to private clients and to public bodies a scale which contained terms that were quite contrary to their rights. As to Resolution (2) before the meeting, he would suggest that the documents referred to should not be printed in the *Kalendar*. As a Member of Council he might say that he was in the North of England when this question of fees for abandoned schemes came before the Council, and he very much regretted not being present, for the scale was utterly ridiculous, and the Ministry was imposing upon architects from every point of view. That they could argue that the conditions of engagement did not apply to the whole of the document was a positive absurdity, and an indignity that they must not put up with.

Mr. LEOARD ELKINGTON [A.] said they owed then thanks to Mr. Gibson for his frank statement, but even with it he doubted whether they could thoroughly understand and appreciate the factors which led the deputation to adopt the scheme. Mr. Gibson said that their primary difficulty was to interpret clause 5 of the Scale of Charges into the conditions of engagement which were an essential part of Memoranda 4 and 31. The deputation appeared to have accepted the views of the Treasury officials, and the Council were at fault in not awaiting the advice of the Practice Committee, whose function it was to consider and advise on such a point as this. The Chairman of a Sub-Committee of the Practice Committee had informed them that that very point had been deemed one on which legal advice should be taken. A point of that nature should not have been assented to at the dictation of the Treasury officials without legal advice. Fortunately, they had Mr. Welch's direct evidence that in two cases fees had been paid in full, under Memorandum No. 4 or No. 31, on the basis of clause 5 of the Scale of Charges. The objections to Memorandum No. 52 were threefold: (1) the extraordinary delimitation of expenses; (2) the absurd scale for abandoned work; (3) the extraordinary definition of the word "Schemes." It was absurd to attempt to lay down that legal contracts, properly made under seal, and based upon a document emanating from the Government, were to be corrected and amended by any chance leaflet issued by the Government, which, after all, was not a party to definite

agreements between the architects and their clients the local authorities. The better course would have been for the Council to have awaited legal advice, and if necessary to have got material from members concerned in housing schemes for a test case against the Government before discussing, much less appearing to accept, a document of this sort. Mr. Gibson, a most able negotiator, had made what he considered the best terms he could under the peculiar position in which he was placed. But he had not explained why the deputation had been led into agreeing that the word "Scheme" in a document published some months previously should now have a different interpretation from what it was clearly intended to have originally. It was a most extraordinary situation. The deputation, if they were discussing fees for abandoned work, ought never to have allowed expenses or the definition of the word "Scheme" to have been imported into the discussion. The Ministry's motive was to whittle down the architects' fees, and the attempt should be resisted with all the force they were capable of. He thought they would be stronger if they took action on the lines indicated by Mr. Perks, and leave the Council to extricate the Institute from the mess into which it had been placed.

Mr. J. H. KENNARD [F.] instanced a scheme with fifty houses, the contract being drawn out for the whole fifty. Twenty had been proceeded with and the other thirty abandoned. On the signing of the contract the architects' fees were paid in the customary manner, one half of the fees for the housing on the whole of the fifty. It was specifically stated in the accounts sent to the Council who paid that money that such was the case. How could those two later documents be held to apply if the other thirty houses were abandoned? There had been a payment made and accepted on that basis, so that the architects had already drawn one-half of the fees on the abandoned thirty houses. It was a position which might easily lead to legal action against the architects, and therefore he thought that Mr. Perks's amendment should be supported. The bulk of the members of the Institute, he felt, had been badly let down—very badly let down—by negotiators who, in the majority, were not familiar with housing practice. The advice ought to have been asked of members who were known to be largely engaged in housing work. In the Ministry's Form of Contract the builder might claim his anticipated profits in the event of his work being abandoned. Why should the architect be deprived of his anticipated profits? He had twice refused private work because he felt he was not justified in accepting it owing to the amount of housing work he had in hand. If the housing schemes were to be cut down, surely he was entitled to some sort of anticipated profit on such housing schemes as he was engaged on, to compensate him for loss of other work. It seemed to him that the Ministry had put a pistol to the heads of the deputation and told them that they had to agree or they would get nothing. The dignified course to have taken was to decline to negotiate any further. He would support Mr. Perks's amendment.

Mr. HORACE CURTIS suggested that in order to strengthen the hands of the Institute in dealing with this matter, every member concerned with housing work who objected to this Memorandum should write to the Secretary stating his own case and giving all particulars. They would then get a considerable volume of evidence which would enable the matter to be dealt with on better lines. With regard to rural housing schemes, members would recall that after Memorandum No. 4 was issued an addition was made to the scale of housing fees for rural work. An extra half per cent. was obtained from the Ministry; so there was a precedent, and he felt sure they would be able to get better terms for rural schemes. Members seemed to assume that Memorandum 51D had been agreed by the Council with the Ministry. That was not so. The Council, probably unwisely, agreed to waive the claim for travelling expenses on distances under twenty-five miles, but they did not agree to the clause in Memorandum 51D, which said: "The

scales of fees in General Housing Memoranda Nos. 4, 31, and 52 are inclusive scales covering all out-of-pocket expenses." The Council had not agreed that with the Ministry, and he suggested that the Secretary be instructed to write to the Ministry pointing out that this was a misstatement.

Mr. A. W. HENNINGS [F.] suggested that the proper method of going to work would be for members themselves to put pressure on the Ministry. In Manchester they had a very large scheme, and half a dozen architects were appointed and panels made. The architects did their work, all their plans were turned down; they sent in a bill to the Corporation on account of the amount they considered they were entitled to. They got what they applied for, but it was only on account. The proper way was for members to send in their accounts and press for them, and not to submit to circulars which were sent out by the Ministry as a guide to local authorities.

Mr. T. ARWYS LLOYD [F.] said there was a deliberate move on the part of the Ministry to cut down urban schemes as well as rural schemes, and not only did that apply to abandoned schemes, for the Ministry were endeavouring to reduce existing contracts. Members should realise that if this sort of thing went through they would find that, supposing a contract were for 100 houses, it would be reduced to 50. Then that would be treated, although the scheme was actually in their hands and formed part of a contract, as an abandoned scheme. The point of abandoned rural schemes did not affect him to any extent personally, so he could speak with greater freedom, and he urged members to pass both amendments, if possible, for they were not necessarily contradictory. If they refused to ratify, and at the same time referred the present scale back, they would be doing the right thing. He hoped their representatives would not accept the Treasury view, as they seem disposed to have done in the past, because obviously that could not now be the architects' view. The sole purpose of the Treasury was to cut down every house they possibly could, by foul means or by fair; they were engaged in cutting down existing contracts, trying to induce builders to give up profits, and so on. The question of Quantities had been raised. He had suggested to the Institute Committee that members who were actually engaged on housing schemes would be glad to come up to the Institute—he himself had come from Cardiff specially for this meeting—to give their views on this question of Quantities, but so far he had not been favoured with an invitation. He hoped if this matter was referred back that the Committee would do those who were engaged in housing operations the courtesy of asking them to come and lay their views before the Committee. He thought they could be of real help.

Mr. Welch's amendment, being put to the vote, was lost.

A discussion then ensued as to the exact wording of Mr. Perks's amendment, which was finally seconded by Mr. G. H. Kennard, and passed by the meeting *nom. con.* in the following form:—

"That this General Meeting declines to alter the Scale of Charges by approving Memoranda 52 and 51D, and calls on the Council to repudiate the statement that the Royal Institute of British Architects has agreed to them."

The proceedings then terminated.

Acquisition of Land for Housing Schemes.

The following General Housing Memorandum No. 53 has been issued by the Ministry of Health:—

1. In view of the fact that the arrangements for the acquisition of land for housing sites are already in advance of the requirements for the building work likely to be put in hand in the immediate future, local authorities should not at the present stage incur further commitments in regard to sites without previous reference to the Housing Commissioner.

2. It is therefore requested that the local authority will obtain the specific authority of the Housing Commissioner—

- (a) before completing the purchase of any site for which negotiations have been completed, but for which no binding contract has been entered into;
- (b) before obtaining valuations or undertaking negotiations for the acquisition of new sites for housing purposes either directly or through the Valuation Office.

3. The Council should also consult the Housing Commissioner on the question whether existing negotiations, either directly or through the Valuation Office, should be continued.

4. In cases where a compulsory order has been made and confirmed, but no notice to treat has yet been served, the Housing Commissioner should be consulted before any further action is taken. If he concurs that the land in question will not be required for the purpose of the assisted scheme, the persons who have been served with notice of the order should be notified that the local authority do not propose to exercise their powers. In any such cases where the local authority may have requested the Valuation Office to reopen negotiations, the Valuation Office should be requested to break off these negotiations.

The Housing Problem in the Villages.

Mr. Maurice Hewlett's account in *The Times* of the 12th inst. of the housing muddle in a rural district of Wiltshire is typical of the state of affairs in numerous districts, rural and urban, throughout the country. Mr. Hewlett, who is on a rural district council and member of its housing committee, writes:—

I was chosen in 1919, with the Housing Act before me. I knew the need of the villages, realized the duties cast on local authority by the Act, and, whatever I may have thought of the scheme, of its financial merits, or chances of success, I accepted it explicitly. I knew that I was tied to the statute, but I took the thing upon its face value, and was prepared to devote my nights and days to it. And so I did, and so did my colleagues. A housing committee was appointed at the first meeting of the new council. I may say that for two and a half years we have never met less than once a fortnight, and have frequently met oftener. We began operations by requisitioning from all the parish councils we served estimates of the number of cottages needed, and of existing cottages which ought to be condemned as soon as substitutes could be provided. Having those, we visited in turn every village, and many more than once, to select sites for new houses, and judge for ourselves of the condition of old ones. The expense of all this, which was considerable, fell, I may say, upon ourselves.

There, then, was our work cut out. Under the provisions of the Act, goaded at every turn by the feverish activity of numberless officials, all anxious, as Mr. George would say, "to deliver the goods," harangued and admonished by the Ministerial Press, we did acquire, at prices settled by Government, some 42 acres of land scattered about in some 24 villages, and borrowed from the Loan Commissioners, in order to pay for it, over £5,800 of public money at 6 per cent., which we have no more chance of repaying than the man in the moon. We instructed architects who, enlisted under terms laid down in a Memorandum 31, set to work with their quantity-surveyors to lay out the sites, and prepare plans and specifications for Ministerial approval. That being obtained, we advertised for tenders, received some, and were badly frightened. The famous "penny rate" limit of our liability, as we were repeatedly assured, produced in our district about £180, less than the quarter of the cost of one cottage. Acquainted

as we all were, with the powers of Parliament, and, as some of us were, with the peculiar methods of Mr. George, we saw that we were about to become debtors to the Government on the face of things for £200,000, on which the interest at 6 per cent. would accumulate for 80 years. Beyond that, we were to be responsible for the upkeep of 240 cottages.

This, Sir, was the bubble solemnly kept in the air by the Government, quite regardless of expense or time or trouble, for 2½ years. During that time, let me tell you, one of our architects was required to produce three successive plans and specifications for the same cottages, all of which were successively "approved" by the Ministry! But enough of that. The bubble was burst in my hearing a month ago, when the District Housing Commissioner, in an interview sought by himself, felt it his duty to tell me that the Government did not intend to sanction any rural housing schemes at all. That information has recently been confirmed by Sir Alfred Mond.

The position of affairs, here, therefore, is this:—

1. The housing problem in the villages is aggravated rather than eased by anything which has been done. Insanitary and ruinous cottages have gone further to decay. Overcrowding is insufferable. Public opinion has been raised, and when the truth is known it will be exasperated.

2. My council (to confine myself to that) find itself owner or contracted purchaser of land, bought with borrowed money at accommodation prices, in a scattered district. It is not only in debt, it is responsible for the rates, and as frontager and adjoining owners must maintain hedges and repair roads.

3. Under compulsion of the bubble Act architects and surveyors have been at work for two years and a half. On the faith of my council, and under the Ministry's Memorandum 31, they were entitled to certain fees for work done and out-of-pocket expenses. What is their position? The District Housing Commissioner, when I asked him that, produced a certain Memorandum 52, only just then issued, which provided that architects employed upon what the Ministry pleasantly calls "abandoned schemes" should receive at the outside one-quarter of the amount which by Memorandum 31 was agreed to be paid at the time of their engagement. Memorandum 52, it must be observed, was not issued until the Government had decided to abandon rural housing.

4. Lastly, I calculate that I alone have spent of my own substance, in wasted time, 16 days of 12 hours each, and in wasted motor hire £50.

If I had been the citizen of some South American Republic I should not have been surprised at a breach of faith on this scale. I should have calculated the risks and taken office with my eyes open. In Great Britain, however, otherwise governed for a thousand years, the South American practice has not been followed until now, when Mr. George has taught the Civil Service to do what no private employer could do without liability to prosecution.

The implication, however, which I hope the country will face, is much more serious. I serve one small rural district in one county of England. There the Government contemplated an expenditure of £200,000; not only contemplated, but insisted, under threat of pain and penalty, that the expenditure should be incurred. A substantial portion of it was incurred accordingly. That has been done all over England. My council is left with land which it does not want and liability which it cannot afford. So have all the rural district councils in England. I have pledged my honour to professional men and am unable to redeem it. So have all district councillors in England. What is one to say, or what is one to do? Is the delinquency moral or mental? At the time the Act was passed no sane man believed it was serious. Did the Government believe it? Anyhow, they have spent our money for us—on nothing at all, and left us in debt. I hope we have had enough South American politics.

1696, with a salary of 5s. a day, died the same year, and was succeeded by Henry Simmons, Clerk of Works at Hampton Court. The latter died in June 1698.

There were three candidates for the vacant post, Mr. N. Hawksmoor, Mr. J. James, and a Mr. Wakup. The first was elected on condition that he resided on the place. He was to continue as Clerk to Mr. Surveyor with his former salary of £50 per annum and 4s. per day as Clerk of Works. James was appointed storekeeper and watchman as a consolation prize.

At the fortnightly meetings of the Committee of Fabric Hawksmoor was constantly in request, every detail of the building being referred to him. In 1705 John James' name appears as assistant to the Clerk of Works, and Hawksmoor was employed on work more especially belonging to the Architect. In 1718 James was appointed Clerk of Works in conjunction with Hawksmoor, and the two both acted together until 1733, when owing to lack of funds the directors suspended the allowances of the two clerks of works. Thomas Ripley, who was surveyor at the time, took on James as his own clerk at a salary of £50 per annum, and generously allowed Hawksmoor 150 out of his own salary. When the work of building began again in 1735 Ripley expressed a wish to "pay his full salary without encumbrances," and James was then appointed sole storekeeper and Clerk of Works. Another effect was granted the use of Hawksmoor's house, who was desired to remove his goods.

The records do not support the view that Sir John Vanbrugh designed the brick building on the west side of the King William Court. This was begun in the year 1714 and roofed in before Vanbrugh was made a Director in 1703. When's model preserved in the Royal Naval College, Musam, shows the building substantially as it exists. It must have been designed by him or by Hawksmoor acting under his direction.

The story is complicated by the fact that the Secretary to the Commissioners was a Mr. William Vanbrugh, and it was no doubt to him that Wren wrote the letter in the possession of the Institute. Yours very faithfully,
ARTHUR D. SHARP, *Accepted.*

Height of Buildings in London.

38, Colmore Street, *Edin.*, 31. 1. 1921

To the Editor, JOURNAL R.I.B.A.

SIR, With reference to Mr. W. R. Dawidge's letter in the JOURNAL of the 25th June, the Institute Building Act Committee was appointed by the Council to investigate the height of buildings, the cubical contents thereof, and cognate subjects, as a consequence of the suggestions thrown out in Mr. Austen Hall's paper on "Departmental Stores" and my paper on "Higher Buildings for London."

This Committee has held numerous meetings during the past 15 months, during which it has gathered together a large amount of evidence and material, and, after carefully considering this, it has prepared a scheme for submission to the Council.

The Committee decided, before submitting its scheme to the Council, to ascertain what measure of support it would be likely to receive from the authorities concerned, and, with this object, the Committee has had conferences with the Building Act Committee of the London County Council, the Fire Brigade Committee of the London County Council, the City Lands Committee of the Corporation, and the Society of Medical Officers of Health. At each of these conferences I was requested by my colleagues to lay their scheme and then arguments before the respective bodies, and, in each case, I prefaced my remarks with the statement that the views put forward were the views of the Institute Committee only, that they had not yet been submitted to the Council, and that, before submitting them to the Council, it was desired to elicit, if possible, the views of the various authorities concerned. When the work of the Institute Committee has been concluded a report will be prepared and submitted to the Council, when they will have every opportunity of considering the Committee's report and of coming to a decision thereon. Yours faithfully,

DELISSA JOSEPH, *F.R.S.*

The *Observer* of the 24th inst. published the following from Mr. Delisse Joseph:—

22. 1. 1921.

SIR, In order to avoid any misunderstanding, I shall be obliged if you will allow me to report out that the scheme for "Higher Buildings for London," which has been prepared by the Building Act Committee of the Royal Institute of British Architects, has not yet been submitted to the Council of the Institute, and that therefore the Council have not yet had an opportunity of forming an opinion thereon. Yours obediently,

DELISSA JOSEPH.

*Joint Hon. Sec., London B.C.C.C.
Joint Comm. of R.I.B.A.*

Unification and Registration Committee.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR, Mr. Arthur Keen is such a hard-working, good friend to the R.I.B.A. that we are loath to criticise him, but we do respectfully suggest that the letters of our Hon. Secretary should be accurate, whether the matter be Registration, Unification, or the Improvement Scheme, carried out at the Mobile Arch. Mr. Keen refers us to the Report of the Committee, but it has made no report. The facts for Mr. Keen's information are as follows:

The Subcommittee made a Report in April, this was considered by the Committee in May, and the following resolutions were passed:—

1. That the principle of Scheme A—namely, the Unifying of all the architects of the United Kingdom into members of the R.I.B.A.—be adopted as the basis for unification.

2. That the matter be referred to the Subcommittee, to consider details and report to the Main Committee.

3. That the Committee recommend the Royal Institute to draft such alterations of its Charter and By-laws as may be necessary to comply with the principle of Scheme A, adopted this day by the Unification and Registration Committee, and to confer with the Council of the Society of Architects as to conditions of membership.

4. That six additional representatives of the Allied Societies be selected by the Chairman and Vice-Chairman from the members of the Main Committee to serve upon the Sub-Committee.

If Mr. Keen will kindly compare our previous letter with the above resolutions he will see that it was based upon those conclusions.

Unification is practically impossible without first obtaining registration. We must follow the example of the dentists and pass a Registration Bill before we tamper with our constitution. We hope Mr. Arthur Keen agrees.—Yours obediently

ALFRED W. S. CROSS, *Vice-President*.

H. D. SEARLES-WOOD, *Vice-President*.

GEORGE HUBBARD [F.].

SYDNEY PERKS [F.].

DIGBY L. SOLOMON [A.].

Re Annual Report (ante pp. 427, 462, 490).

29 June 1921

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I would not further trespass on your space with reference to the above matter, saying the fact that I owe it to my friend Mr. Welch to clear any aspersion on his capabilities which might be read into my letter of the 17th inst. He has informed me that he is not and never has been a Member of the Scale of Charges Committee, which as a matter of fact I took for granted. Mr. Keen's statement, therefore, was in error, and puts still stronger force into the point I raised. As an individual, of course, Mr. Welch's special knowledge makes him admirably fitted to deputise for the Institute, but this does not relieve the Institute of its responsibility to get the best possible representatives from *all* sources, and obviously the very first body to be consulted should be the Committee which has rendered such strenuous and excellent service for years past on the precise matter in question.—Yours truly,

P. M. FRASER [F.].

4 July 1921.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—In the JOURNAL of 25th June Mr. P. M. Fraser further deals with the R.I.B.A. Annual Report and replies in particular to the letter from Mr. Arthur Keen, published in the JOURNAL of 11th June last.

I have no desire to "butt in" between these two worthies so long as they confine the tussle to themselves, but they seem to have missed each other with one of their little "jabs" and I appear to have intercepted it. In Mr. Keen's letter he states that "Mr. Welch was appointed a member of the deputation to meet the Ministry of Health as a representative of the

Scale of Charges Sub-Committee." Mr. Fraser in turn takes up this point and states, "With regard to the appointments to the deputation to the Ministry of Health regarding the Scale of Charges I was not speaking of any sub-Committee. I referred to the Scale of Charges Special Committee, at which Mr. Welch never put in an appearance, and the fact now made clear, that he was appointed on the grounds of his special knowledge, throws some light on the lack of consideration given by the Council to this important matter." I need quote no further.

Now both of these gentlemen are wide of the mark in their statements. The actual facts are as follow:—The deputation to the Ministry of Health had been in existence for some considerable period when the Housing sub-Committee of the Practice Standing Committee requested that I should be nominated a member of the deputation to represent the Practice Committee with especial regard to housing. The Practice Committee in due course adopted their sub-Committee's recommendation and forwarded it to the Council who then added my name to the deputation as representing the *Practice Committee*. I am not nor have I ever been a member of "The Scale of Charges Special Committee."

Since my appointment to the deputation one meeting only has been held with the Ministry of Health, and at that meeting I was present. I have therefore served a full "possible" number of attendances. Further, I requested that I might be allowed to be present when the "draft" of our deliberations was finally agreed. My request was granted, but I was not apprised of the date of the meeting, nor was I (as a member of the deputation) given an opportunity to see the draft until it reached me in printed form after having been agreed to by the Council.

I consider that this draft does not by any means accurately represent the conclusions we arrived at.—Yours, etc

HERBERT A. WELCH [A.].

[Members may be glad to know the precise facts in this matter. There was no representative of the "Scale of Charges Committee" on the deputation because that Committee was wound up at the end of the Session 1918-19 on the completion of its task of drafting the new Scale of Charges adopted in 1919. Mr. Welch was not a member of that Committee.

In the year 1920 the Practice Committee appointed a Sub-Committee to consider and report on all questions affecting Housing Fees and Housing matters generally. Of this Sub-Committee Mr. Welch has been a member from the start. In view of Mr. Welch's special knowledge of the problems involved, the Practice Committee, on the recommendation of the Sub-Committee, advised the Council to add Mr. Welch to the deputation to the Ministry of Health. This was done. This Sub-Committee is, of course, the one referred to by the Hon. Secretary as the "Scale of Charges Sub-Committee" as it is the Committee specially charged with the duty of considering the

question of Architects' Charges for Housing Schemes. The Hon. Secretary's statement therefore explained the exact position of affairs.—SECRETARY R.I.B.A.]

The Government's Future Housing Policy.

17, Pall Mall East, S.W.1, 26 July 1921.

To the Editor, JOURNAL R.I.B.A.—

SIR,—It is not to the interest of the community in general or of the building industry in particular that two astounding statements made by the Minister of Health in his explanation of the Government's future housing policy should be accepted unchallenged.

In his assertions that the Government is performing, in this respect, a work of supreme national importance which private enterprise could not carry out, and that the housing scheme, as now curtailed, will utilise all available labour for at least twelve months, many of us will recognise an attempt to justify failure and an excuse for its abandonment, rather than a candid statement of facts.

Had the Minister stated that this abandonment would be final a grateful public could have afforded to be silent, but his assurance of the intention of Government "to keep the housing problem closely under review" implies, if anything, that the scheme is not dead but sleeping.

The revival of private building enterprise will be coincident with and in ratio to the removal of the disabilities heaped upon it by injudicious legislation, and not the least of these disabilities is the fear of further action by a Minister who suggests that the building operations of a country boasting over two millions of unemployed should be restricted on account of the limitations of available labour.

With the best of intentions we architects have rendered our country but poor service in subscribing to a scheme of which we, at least, should have been able to foresee the disastrous results, and it remains to us to make the *amende honorable* in a frank admission of our mistake and by insistence upon the freedom of private enterprise to erect such houses as our countrymen need and can afford to possess.—Yours, etc.,

JAMES RANSOME [F.].

General Housing Memoranda Nos. 52 and 51 D.

12, Gray's Inn Square, W.C.1, 15 July 1921.

To the Editor, JOURNAL R.I.B.A.—

SIR.—When the above documents came up for ratification by members at the General Meeting of the Institute, one was astounded to find that, although the Council of the Institute had assured the Ministry of Health that it approved the terms of the documents in question and would lay them before its members for ratification, not one member of the Council was present at the meeting, and it was necessary for the members to elect their own chairman before the business could be commenced.

This state of affairs may have been an accident, but in any case it was most unfortunate.

When this had been done, and the business commenced, we were treated to a series of the lamest recommendations to accept those documents that it has ever been my lot to listen to, and in the course of these "apologies" by some of the members who had constituted the deputation to the Ministry of Health, it became apparent that they were not even agreed amongst themselves, and considered that they could arrange better terms if matters were referred back to them.

The position of Mr. Welch has my sympathy. He was apparently dragged in at the last moment to advise a committee of negotiators how to proceed with business regarding which they had no experience.

Two questions present themselves to my mind.—

(1) Why should the Council of the Institute consent to negotiate upon questions which the members had settled by ratifying Housing Memorandum No. 4?

(2) Had the Council any right to notify the Minister of Health of approval of documents in question without first submitting them to the members at a General Meeting?

I am deeply interested in the settlement of the question of fees on abandoned schemes, and shall be pleased to collaborate with any other members in the mutual protection of our interests, which seem to have been very badly handled by the body to whom we should be able to look for guidance and support.—Yours faithfully,

JOHN HAROLD KENNARD [F.].

[Mr. Kennard is mistaken. There were several Members of Council present, and five of them—Messrs. Lanchester, Keen, Gibson, Perks, and Lucas—took part in the debate.

With regard to question 1, it may be recalled that the Council consented to negotiate on the revision of General Housing Memorandum No. 4 as a result of a very widespread demand from members who were engaged on rural housing schemes. The improved terms for rural schemes which are embodied in Memorandum No. 31 were the outcome of the renewed negotiations.

With regard to question 2, there is no doubt as to the Council's right to inform the Ministry that they approved the document negotiated by the deputation and would submit it to the General Body for ratification.—SECRETARY R.I.B.A.]

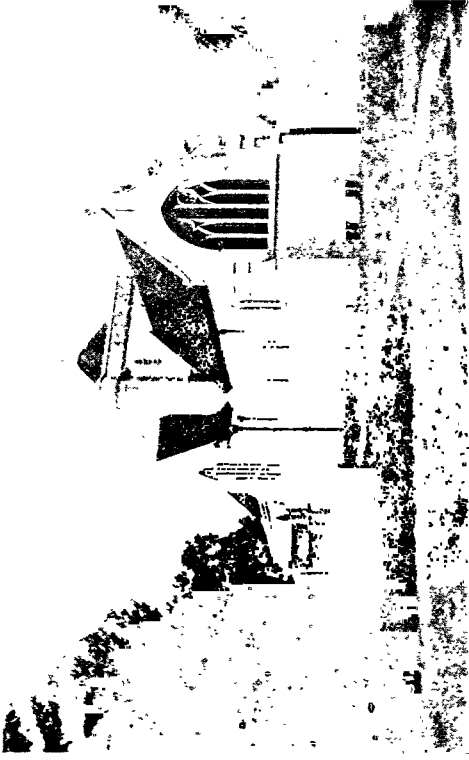
R.I.B.A. Balance Sheets.

The Guildhall, E.C.4, 30 Jan. 1921.

To the Editor, JOURNAL R.I.B.A.—

SIR,—Mr. P. M. Fraser in his letter published in the JOURNAL on the 25th inst. refers to the item of subscriptions in arrear. Messrs. Saffery, Sons and Co., Chartered Accountants, prepare the balance sheet, and I communicated with them. They write me as follows:

"The item 'Subscriptions in arrear' is included in the balance sheet as it represents what the Institute may reasonably expect to receive from this source."



VIEWS IN THE WHITELEY VILLAGE

ENGLISH DOMESTIC CLOCKS. By H. Cescinsky and Malcolm R. Webster. 2nd ed. 40. Lond. 1914. £2 10s. [George Routledge and Sons, Ltd.]

A history of domestic clocks in England from the lantern clock of Cromwell to the Parliamentary clock of the beginning of the 19th century. The book is very fully and excellently illustrated, and there are several extremely interesting plates illustrating in detail the working movements, the development of spandrel ornaments and of clock-hands. There is a list of all the makers illustrated, with their dates.

E. S. H.

LES MOSQUEES DE SAMARCANDE. La. fo. St. Pétersbourg. 1905. £2 2s. [Expédition pour la Confection des Papiers d'Etat.]

These large plates, eighteen in number, with explanatory notes in Russian and French, from the first portfolio of a series illustrating the important but little-known mosques of Samarcand. The mosque of Gour-Emir was commenced by Tamerlane in A.D. 1404 and is one of the most famous buildings of mediæval Tartary, and contained the tomb of Tamerlane himself. Among the plates are some magnificent illustrations in colour of Persian tiling and other details of craftsmanship, in which Muhammadan architecture always excelled.

M. S. B.

A HISTORY OF CIVILISATION IN PALESTINE. By R. A. S. Macalister. Litt.D., F.S.A. 1921. 2nd ed. 4s. [Cambridge University Press.]

A second edition of a little book that is already recognised as valuable as describing the earlier archaeological history of Palestine, and also touching on the Roman, Byzantine, Moslem, and Crusading epochs. It has been revised and brought up to date in the light of discoveries since its first publication in 1912. Contains a map and nine other illustrations.

M. S. B.

A COLLECTION OF ANTIQUE VASES, TRIPODS, CANDELABRA, ETC. 80. Lond. 1921. 10s. 6d. [John Tiranti, Maple Street, Tottenham Court Road.]

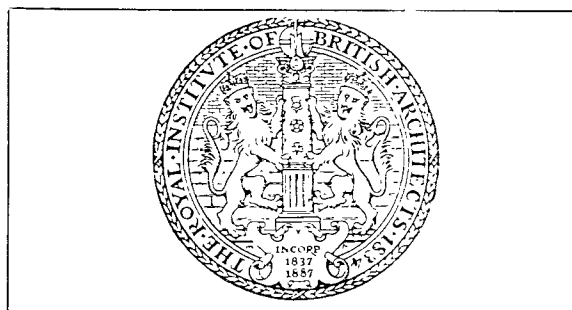
Reproductions of 120 plates, engraved in the early 19th century, by Henry Moses and others. The subjects are vases, candelabra and tripods in the classical manner, mostly antique. Some of the engravings are in pure line, others in the style of Piranesi. The selection seems to have been made with taste.

H. M. F.

LES MONUMENTS HISTORIQUES: CONSERVATION. RESTAURATION. 268 Gravures. Par Paul Léon. 40. Paris. 1917. £1. [Librairie Renouard, Henri Laurens, Editeur, 6. Rue de Tournon.]

This very important volume, by M. Léon, "Chef des Services d'Architecture au Sous-Secrétariat d'Etat des Beaux-Arts," is a history of the restoration of historical monuments, as the French understand it. It is fully illustrated, and some of the illustrations, showing buildings before and after "restoration," serve to show how far removed are French ideas on this subject from those of Englishmen who have given it their attention. The book is divided into three parts, dealing with the origins, organisation and work of the Service of Historical Monuments, and must be of great interest to all who care for what is left to us of old French architecture. The concluding sentence offers a ray of hope: "Sous l'influence des doctrines archéologiques, les architectes ont restreint leur action sur les monuments: renouant à les rajeunir ils se bornent à prolonger leur durée."

H. M. F.



9 CONDUIT STREET, REGENT STREET, W., 30th July 1921.

CHRONICLE.

Liverpool Conference: Message from the King.

The following message to the King was telegraphed from Liverpool on the occasion of the Conference banquet:—

"Royal Institute of British Architects assembled in conference at Liverpool submit their humble duty to His Majesty their Patron with expressions of loyal admiration."

"JOHN W. SIMPSON, President."

His Majesty graciously replied:—

"The President, Royal Institute of British Architects,"

"The King has received with much pleasure the loyal message which you have sent to His Majesty from the Royal Institute of British Architects assembled in Conference in Liverpool, and I am to assure you how much His Majesty appreciates the kind sentiments to which your telegram gives expression."

"PRIVATE SECRETARY."

R.I.B.A. Reception and Garden Party.

The company at the Reception and Garden Party held by the President and Council of the Royal Institute in the Gardens of the Zoological Society on Peace Commemoration Day numbered little short of a thousand persons gathered together from all parts of the country. The President, supported by the Vice-Presidents and Hon. Secretary, received the guests in the Society's great Library from 4 to 4.30. This was Mr. Simpson's last public function as President, and numbers of members profited by the occasion to express to him their personal acknowledgments for the inestimable services he has rendered the profession during his term of office. Among distinguished people who accepted invitations were the Earl of Crawford and Balcarres, Lord and Lady Milner, Lord Leverhulme, Lord and Lady Riddell, the Lord Mayor of London, Sir Alfred and Lady Mond, Sir Aston and Lady Webb, Sir George and Lady Perley, Dean Inge and Mrs. Inge, Field-Marshal Sir Wm. Robertson, Sir Reginald and Lady Antrobus, Sir Lionel Earle, Sir Edward and Lady Busk, Sir P. O. Lawrence, Sir Ernest and Miss George, Sir David Murray, Sir Arthur and Lady Cope, Sir Alfred Stephenson, Sir James Carmichael, Sir H. T. and Lady Eve, Sir Humphry and

Lady Rolleston, Sir Israel Gollancz, Sir Isidore Spielmann, Sir Anthony A. Bowlby, Sir Philip and Lady Pilditch, Col. Sir Wm. and Lady Smith, Sir Cooper Perry, Sir Charles and Lady Ruthven, Sir Lawrence and Lady Weaver, Sir John and Lady MacAlister, Professor Gerald Moira, and others. The Great Lawn, with its spacious marquee, and the Fellows' Tea Enclosure were reserved for members and guests. By permission of Col. A. C. A. McCalmont, D.S.O., the Band of His Majesty's Irish Guards, conducted by Lieut. Charles H. Hassell, played at intervals during the afternoon and evening. The weather was all that could be desired for a Garden Party, and the opportunity of meeting one's friends and colleagues under such agreeable conditions was greatly enjoyed and appreciated.

Mr. Simpson's Dinner Party.

On the evening of the Garden Party, Mr. John W. Simpson celebrated the conclusion of his term as President by giving a dinner party at the Garrick Club to his colleagues on the Council and other friends. The guests included Mr. Walter Cave; Mr. E. Guy Dawber, F.S.A.; Professor S. D. Adshead; Mr. Arthur Keen; Major Harry Barnes, M.P.; Mr. Max Clarke; Mr. H. P. Burke Downing, F.S.A.; Sir Banister Fletcher; Mr. W. Curtis Green; Mr. J. J. Joass; Mr. Geoffrey Lucas; Mr. A. N. Prentice; Mr. H. D. Searles-Wood; Mr. Horace Cubitt; Mr. W. R. Davidge; Mr. E. Stanley Hall; Mr. Ernest Newton, C.B.E., R.A.; Mr. H. T. Buckland; Mr. H. G. Watkins; Mr. Maurice E. Webb, D.S.O., M.C.; Mr. J. S. Gibson; Mr. E. Vincent Harris; Sir Edwin L. Lutyens, R.A.; Mr. Sydney Perks, F.S.A.; Mr. Stanley Hamp; Mr. W. G. Newton, M.C.; Mr. Ian MacAlister, Secretary R.I.B.A.; Mr. Maxwell Ayrton.

Notes from the Minutes of the Council Meetings.

4th July 1921.

Architects and the Office of Works—The Council approved the resolution of the Liverpool Conference on the subject of the Office of Works, and referred it to the Office of Works Committee.

The Associates' Committee—The Council granted financial assistance to the Associates' Committee to enable them to consult provincial opinion on the proposals for unification and registration.

Provincial Representatives on the Practice Committee.—The Council acted on a suggestion from the Conference of Representatives of Allied Societies to appoint provincial members to serve on the Practice Committee and represent important areas in the United Kingdom.

Illegal Use of R.I.B.A. Affix.—Three cases were reported to the Council in which architects who were not members of the Royal Institute had made use of the R.I.B.A. affix.

The General Council of the National Registration of Plumbers.—Mr. H. D. Searles-Wood, Vice-President, was appointed to represent the R.I.B.A. on the

General Council for the National Registration of Plumbers.

The International Union against Tuberculosis.—Mr. E. T. Hall [F.] and Mr. W. A. Pite [F.] were appointed to represent the R.I.B.A. at the International Conference of the International Union against Tuberculosis in London, 26-28th July.

18th July 1921.

The Scale of Fees for Housing.—The Council received the Resolution of the Special General Meeting on July 4th, and arranged to resume negotiations with the Ministry of Health.

Boards and Committees.—Appointments for the Session 1921-1922 were made.

Examinations.—The results of the Examinations in June and July 1921 were approved; the Ashpatel Prize was awarded to Mr. L. W. Ingham and a mark of distinction to Mr. F. I. Telfery.

Testimonies of Study.—Certain modifications were made in the Testimonies of Study for the Intermediate Examination with a view to facilitating the work of the "Recognised Schools."

Exemptions from the Intermediate Examination.—Exemption was granted to the successful students of McGill and Toronto Universities at the end of the three-years' course in architecture.

The Glasgow School of Architecture.—The five-years' Diploma Course was recognised as exempting from the Final Examination under the usual conditions.

The School at Rome.—It was decided to exempt the holder of the Rome Scholarship in Architecture from the Final Examination under the usual conditions at the conclusion of his three years' study abroad, and the holder of the Henry Jarvis Studentship at Rome after his two years' study abroad, provided that their work is approved by the Board of Architectural Education.

Design Problems in the Final Examination.—It was decided that, subject to the approval of the Council, designs prepared at the Royal Academy Ateliers and also at the "Recognised" Schools may be submitted by candidates for admission to the Final Examination in place of the same number of Problems in Design.

New Allied Societies.—The Institute of Scottish Architects and the Inverness Chapter of the Institute of Scottish Architects were admitted as Allied Societies of the Royal Institute.

Stoppage of the Housing Subsidy.—It was decided to communicate with the Minister of Health in regard to the stoppage of the Housing Subsidy in cases in which an architect has already been employed.

Reinstatement.—Mr. A. Hunter Crawford was reinstated as a Fellow of the Royal Institute.

The Standing Committee on Water Regulations.—Messrs. H. D. Searles-Wood and Max Clarke were appointed to represent the Royal Institute.

St. Paul's, Covent Garden.—The Art Standing Committee were authorised to take action for the preservation of the Building in conjunction with the Society for the Protection of Ancient Buildings.

Extension of R.I.B.A. Premises.

At the Council meeting of the Royal Institute on 18th July, the purchase of the perpetual lease of No. 19, Conduit Street was reported by the President, who called the attention of the Council to the valuable services rendered in this matter by Mr. Sydney Perks, Chairman of the Finance and House Committee. It was due, he said, to the energy, fore-sight and business capacity of Mr. Perks that this much-needed extension was obtained at such a moderate price. The Council recorded a very hearty vote of thanks to Mr. Perks for his services in the matter.

Council Appointments to Standing Committees

Under the provisions of By-law 51, the Council have made the following additional appointments to the Standing Committees:—

Art Standing Committee.—Messrs. W. I. Tapper [L.], W. A. Forsyth [F.], Alfred Cox [F.], F. R. Horns [F.], J. Duke Coleridge [F.].

Literature Standing Committee.—Messrs. H. M. Fletcher [F.], S. C. Ramsey [F.], A. H. Moberley [F.], H. Austen Hall [F.], C. E. Sayer [A.].

Practice Standing Committee.—Messrs. Ivor Jones [F.], Rupert Savage [F.], Francis Jones [F.], T. R. Milburn [F.], A. O. Collard [F.].

Science Standing Committee.—Messrs. J. E. Franck [F.], T. F. H. White [A.], H. A. Savi [F.], Herbert Shepherd [F.], E. Flander Etchells [Hon. Assn.].

Removal of Building Restrictions.

At a Joint Meeting of representatives of the R.I.B.A., the Society of Architects, the Surveyors' Institution, the Quantity Surveyors' Association, the Institute of Builders, and the National Federation of Building Trades' Employers on the 9th ult. Mr. H. D. Searles-Wood [F.] in the Chair, among the matters discussed was the prohibition of building operations under Section 5 of the Housing (Additional Powers) Act, and it was shown how severely handicapped the building industry generally was owing to the restriction of bricklayers' work by the London County Council and the consequent uncertainty and indecision amongst building owners and others in regard to the placing of contracts. Evidence was given that, except in certain isolated instances, there was no difficulty in obtaining bricklayers, and that the restriction upon brickwork was necessarily having a deterrent effect upon the operation of the scheme for the employment of ex-service trainees, as well as preventing the employment of men in other branches of the industry at a time when everything possible should be done to encourage it. Mr. Searles-Wood undertook to put the views of the meeting before the Ministry of Health, and in a letter of 10th June, addressed to Sir Alfred Mond, he suggested that the Ministry should represent to the London County Council that, in view of the clause in the Housing Bill then before Parliament removing building restrictions, their prohibition of certain building operations should be withdrawn.

Mr. Searles-Wood has since received the following communications from the Ministry of Health and the London County Council:—

Whitehall, S.W.1.: 7th July 1921.

H. D. Searles-Wood, Esq. —

SIR.—I am directed by the Minister of Health to advert to your letter of the 10th ultimo, with reference to the restriction on building operations, and to state that the Housing Act, 1921, has now received Royal Assent. Section 2 of this Act repeals Section 5 of the Housing (Additional Powers) Act, 1919, which gave power to local authorities to prohibit building operations which interfered with the provision of dwelling houses.—I am, sir, your obedient servant,

J. C. WRIGHTLEY.

For Assistant Secretary.

County Hall, Spring Gardens, S.W.1.: 7th July 1921.

H. D. Searles-Wood, Esq. —

SIR,—With reference to previous correspondence on the subject of the construction of certain works or buildings, I am directed to state that in view of the abrogation of the powers of local authorities under Section 5 of the Housing (Additional Powers) Act, 1919, relative to the prohibition of works and buildings which interfere with the provision of dwelling houses, the Council will now raise no further objection to the use of brickwork and the employment of bricklayers in connection with such works or buildings.

This intimation must not be taken as a consent under the London Building Acts or under any other Acts to the carrying out of any works, and is without prejudice to the provisions of such Acts.—I am, sir, your obedient servant.

JAMES BIRD,

Clerk of the Council.

Height and Cubical Extent of Buildings in London.

The Building Acts Committee of the London County Council submitted the following report at the Council meeting of the 5th July:—

The Council of the Royal Institute of British Architects have appointed a committee, known as the Building Act Committee, to consider the reform of the London Building Acts, more particularly with regard to the question of higher buildings and buildings of unlimited cubical extent. Section 47 of the London Building Act, 1894, provides that a building (not being a church or chapel) shall not be erected to a greater height than 80 feet (exclusive of two storeys in the roof and of ornamental towers, turrets or other architectural features or decorations) without the consent of the Council. Further, the regulations made by the Council on 22nd February, 1910 (pp. 368–370), under Part III. of the London County Council (General Powers) Act, 1908, provide among other things that a building of the warehouse class in respect of which consent is required to the provision of additional cubical extent beyond 250,000 cubic feet shall not exceed 60 ft. in height measured from the pavement level to the upper surface of the floor of the top-most storey, and that the floor area of any division or cell of such building shall not exceed 20,000 sq. ft.; but the regulations also provide that they may be varied as the Council thinks fit.

The Building Act Committee of the Royal Institute have submitted specific suggestions for modifications in the application of section 47 of the Act of 1894 and of the regulations under Part III. of the Act of 1908. We have discussed the whole question with the representatives of the Building Act Committee, and as the proposals were of great importance from the point of view of fire attack we have

consulted the Fire Brigade Committee, who have also discussed the matter with the Building Act Committee.

As stated above, it is within the discretion of the Council to relax the provisions of section 47 of the Act of 1894, and of the regulations under Part III. of the Act of 1908. Hitherto we have considered on their merits all applications for the exercise of these discretionary powers. After careful consideration of the proposals submitted by the Building Act Committee of the Royal Institute, we did not consider that the circumstances justified action being taken in the direction suggested by that committee, and we have decided to continue the present practice of dealing on its merits with each case which may be submitted to the Council.

Manchester Builders' Endowment of Architectural Travelling Studentships.

The gift of £3,332 by the Manchester District Institute of Builders to Manchester University for the endowment of travelling studentships in the University's School of Architecture, and for the assistance of the general fund of the University, was formally presented last week. The Institute is an association of craftsmen, and the gift is a builders' effort to improve architectural education.

Sir HENRY MIERS, the Vice-Chancellor, speaking at the presentation, said that this generous gift was one of the most significant and promising things for the University since he came to Manchester. It indicated that spirit of co-operation between different sections of the community upon which an institution like a modern university must be dependent. It also indicated the builders' sense of debt and duty to architects, and the architects' sense of their obligation to the craftsmen. He hoped the gift would be regarded as an example to other industries.

Professor A. C. DICKIE [A.R.I.B.A.], Director of the University School of Architecture, said the gift would place that branch of the University in a sound financial position, equal to that of the best of the architectural schools of the country, which were now replacing the old method of architectural education by pupilage in architects' offices.

The Rome Scholarship and Jarvis Studentship.

The Scheme of Competition in 1922 for the Rome Scholarship in Architecture, offered by the Commissioners for the Exhibition of 1851, and for the Henry Jarvis Studentship, offered by the Royal Institute of British Architects, is as follows:—

The Rome Scholarship will be of the value of £250 per annum, and will be ordinarily tenable at the British School at Rome for three years. Candidates must be British subjects and less than 30 years of age on 1st July, 1922.

The Jarvis Studentship will be of the value of £250 per annum, and will be ordinarily tenable at the British School at Rome for two years. This Studentship will be confined to Students or Associates of the R.I.B.A. (see section "B"), but otherwise the conditions for the two awards will be the same.

The competition, which will be conducted by the Faculty of Architecture of the British School at Rome, will be in two stages:—

(a) A preliminary examination open to approved candidates.

(b) A final competition, open to not more than ten candidates from those competing in the preliminary examination.

(A) THE PRELIMINARY EXAMINATION.

Application to compete in this examination must be

* Admission to compete may be granted at the absolute discretion of the Faculty to candidates over 30 years of age, provided they have spent in War service at least that number of years by which their age exceeds 30.

made on the prescribed form to the Honorary General Secretary, British School at Rome, 1, Lowther Gardens, Exhibition Road, S.W.7, not later than 1st November, 1921.

The application, containing a statement of the student's qualifications, will be examined by the Faculty of Architecture, in whose absolute discretion lies the granting or refusing of permission to compete.

Due notice will be given to approved candidates of the time and place of the preliminary competition, which will extend over a period of 31 days. The first 12 hours of the examination will be held *à la carte* at approved centres, and during this time the candidate will be required to make a sketch design of the subject which will be announced at the opening of the examination, and he will be required to deliver up a tracing of the sketch design at the end of the first 12 hours.

The candidate may choose his own time and place for the execution of the finished designs, which must adhere substantially to the sketch design done on the first day.

The finished designs, together with the sketch designs, will be examined by the Faculty of Architecture, who will make a selection of not more than ten candidates to compete in the final competition.

(B) THE FINAL COMPETITION.

The first part of this competition will be held in London at the Royal Institute of British Architects, and will consist of a continuous examination of 36 hours *à la carte*, during which time the candidate will be required to make a sketch design of the subject which will be announced at the opening of the competition. At the end of the 36 hours the candidate will deliver up a tracing of the sketch.

In the second part of this competition candidates will be allowed for the execution of their finished designs a period not exceeding 12 weeks. Candidates may complete their designs, which must adhere substantially to their sketch designs, in their own time and place.

The successful candidate in this competition will be recommended for appointment to the Rome Scholarship, and the Student or Associate of the Royal Institute of British Architects who is placed next in order of merit, will be recommended for appointment to the Jarvis Studentship.

GENERAL.

All drawings must be sent to the Honorary General Secretary, British School at Rome, c/o The Secretary, Royal Institute of British Architects, 9, Conduit Street, W.1, at the candidate's expense, and will be returned to him at his expense. Due care will be taken of all drawings submitted, but the Faculty will not hold themselves responsible for any loss or damage.

Each drawing must bear a pseudonym. A sealed envelope bearing the pseudonym on the outside and enclosing the name of the candidate and a declaration that the finished designs have been wholly designed and executed by him, must be forwarded to the Honorary General Secretary. Under no circumstances should the sealed envelope be attached to the drawings.

Victoria and Albert Museum: The Guards Memorial.

In connection with the scheme for placing the Guards Memorial on the eastern boundary of St. James's Park, facing the Horse Guards Parade, plans have been prepared by H.M. Office of Works, indicating the proposed site and the alteration to the roadway which will be necessary. The road improvement scheme extends from Bridleway Walk to the Mall, and the southern end has already been dealt with in connection with the new Public Offices. Continuation to the Mall as proposed will result in the addition of about half an acre to the park area exclusive of the lawns in front of the Government buildings. The plans have been placed on exhibition for a few weeks in the Central Court of the Victoria and Albert Museum.

Cricket: R.I.B.A. v. A.A.

The depression of thoughts of Ireland, coal strikes, and general labour troubles, made the idea of a whole day—in mid-week, mind you: none of your Saturday afternoons—given up to a cricket match at Elstree between the R.I.B.A. and the A.A. as welcome as rain in times of drought.

In the last match—in those mythical days before the war—the rival teams, if my memory serves me, were in charge of Sir Reginald Blomfield and Mr. Curtis Green. This year Mr. Green had automatically progressed to the captaincy of the Royal Institute, while the A.A. were led to victory by their new President, Mr. W. G. Newton. A motor 'bus, with "Private" instead of "Putney" on its board, is obviously the only way to go to a cricket match, and the teams were landed on the Association's ground without mishap before noon on 29th June. As, with few exceptions, the form of individual batsmen was an unknown quantity, the first task of the captain, namely, the order of going in, was a bit of a puzzle. How well Mr. Curtis Green, who won the toss, sized up his somewhat heterogeneous collection of architectural cricketers, by one searching look in the face, was a triumph of character reading, as the first three wickets scored over 100 runs, while the tail refused to give even the semblance of a wag, and the Institute was all out soon after lunch for 158.

A. S. Knott and F. N. Young gave the Association a good start, and in spite of great efforts on the part of Mr. Doll, Mr. Robson, and Mr. Hubbard, backed up by somewhat middle-aged fielding on the part of the other members of the R.I.B.A. side, the total was passed with the loss of 6 wickets. The last few wickets soon fell, and the A.A. were victorious by 19 runs.

Then the fun began, as it was decided to start a new match—reversing the order of going in and giving each side three-quarters of an hour to make as many runs as possible in the time—it being understood that only non-bowlers should be allowed to bowl. After an hour and a half of strenuous and exciting cricket on rather unorthodox lines, the Institute won the return match by 8 runs, with two minutes to spare. And so to our motor 'bus again and then to bed, and some at least to the agonies of stiffness as a token of a day well spent.

The A.A. are to be congratulated on an excellent ground, which I gather is now their own property, and only needs a small annual expenditure to make it first-class. Perhaps among games lovers this can be taken as one more reason for assisting the general endowment appeal which has lately been launched.

The following is the score in match No. 1. I fancy all records of match No. 2—if there were any—have been lost.

R.I.B.A.			
M. H. C. Doll, b Parker ..	..	..	66
P. W. Hubbard, c & b Crickmay ..	..	..	14
J. S. Brocklesby, b Parker ..	..	..	36
E. B. Glanfield, c & b Parker ..	..	..	13
S. B. K. Caulfield, b Young ..	..	..	2
P. A. Robson, b Young ..	..	..	4

B. C. E. Bayley, b Young ..	..	..	1
H. C. Corlette, c & b Withers ..	..	..	1
J. Alan Slater, b Young ..	..	..	0
F. W. Hagell, c Horswill, b Withers ..	..	..	0
W. Curtis Green, not out ..	..	..	0
Extras ..	..	..	21
Total ..	..	..	158

BOWLING ANALYSIS.					
		O.	M.	R.	W.
Young ..	..	15	5	55	4
Withers ..	..	6.3	2	16	2
Crickmay ..	..	2	0	22	1
Parker ..	..	7	0	44	3

A.A.					
A. S. Knott, b Doll ..	..	..	..	64	
F. N. Young, c Doll, b Hubbard ..	..	..	..	26	
G. H. Crickmay, c Slater, b Hubbard ..	..	..	..	5	
H. Pilkington, b Robson ..	..	..	..	4	
M. Tapper, b Robson ..	..	..	..	0	
J. K. Parker, b Glanfield ..	..	..	..	61	
W. G. Newton, b Doll ..	..	..	..	6	
H. L. Massey, b Glanfield ..	..	..	..	0	
K. G. Withers, b Doll ..	..	..	..	3	
P. Horswill, not out ..	..	..	..	1	
R. A. Livett, b Glanfield ..	..	..	..	0	
Extras ..	..	..	..	7	
Total ..	..	..	..	177	

BOWLING ANALYSIS.					
		O.	M.	R.	W.
Hubbard ..	..	7	1	40	2
Robson ..	..	14	0	60	2
Doll ..	..	11	1	48	3
Glanfield ..	..	4.2	0	22	3

J. A. S.

Exhibition of Architecture, Furniture, &c, at Liège.

The Association of Liège Architects are organising an Exhibition of Architecture, Liège Furniture, and Building Materials to open at the Palais des Beaux-Arts, Liège, on the 13th August. Exhibits of their work have been promised by architects of other countries and the Minister of Railways has undertaken to return such exhibits carriage free.

The exhibits of furniture are to comprise authentic antique pieces set in "interiors" constructed to represent their own period and shown side by side with modern furniture designed after the manner of the famous old Liège examples. The purpose of the promoters is to bring home to the Belgian public the artistic skill of their own local craftsmen which, though appreciated at its true value abroad, there is a tendency to ignore at home. A competition has been organised for cheap furniture suitable for the middle-class dining-room. Designs of every kind have been invited, and as the programme has been widely circulated, the results are awaited with much interest.

Applications have been very numerous, both from Belgian and foreign firms, for stalls in the Building Trades section. This will form Section C, and will constitute a series of bazaars for the display of every kind of material, natural and artificial, in the building art. Several pavilions have been erected in the beautiful Parc de la Boverie, situated between the Ourthe and the Meuse.

Particulars of the Architectural and Furniture Exhibition may be obtained from the Secretariat-General, 3 rue de la Boverie, Liège; and for the Building Materials Section from the Secretary, 55 rue Monulphe, Liège.

London University Site.

A meeting of London Members of Parliament was held on the 25th inst. to receive a deputation from the London County Council which urged the desirability of selecting Holland House Estate as the site for London University. The deputation included Captain Swinton, Sir William Collins, Mr. Hudson Lyall, and Mr. A. F. Buxton. It was suggested that the Holland House Estate, with the additional 15 acres on which an option could be secured, was much to be preferred to the Bloomsbury site offered by the Government. The meeting was interrupted by the division bell and the London members promised to have another meeting to go fully into the matter.

District Surveyors.

Consent has been given under section 142 of the London Building Act, 1894, to the appointment of eighteen deputy District Surveyors.

The appointments of Mr. S. F. Momer-Williams [A.], Mr. E. Marsland and Mr. W. J. Hardeastle [F.], District Surveyors for St. Pancras, Camberwell and Westminster West, respectively, have been extended for one year from 8th May, 27th and 3rd July, 1921, respectively.

Mr. C. W. Surrey [A.], District Surveyor of Westminster South, has been appointed interim District Surveyor of Chelsea, and consent has been given to the administration of the latter district from his office in the district of Westminster South, viz., No. 22, Buckingham Gate, S.W.1.

The London County Council is recommended by its Building Acts Committee to increase as from the 1st October the fees payable to the District Surveyors under the London Building Acts by 25 per cent. This is in addition to the 25 per cent. increase provided for in the Council's General Powers Bill.

LEGAL.

Government Buildings, Ottawa, Competition : Competitors' Action for Breach of Contract : Judgment.

SAXE AND ARCHIBALD v. THE KING.

This action arose out of the preliminary competition promoted by the Canadian Government under an Order in Council in 1913 for plans for proposed Departmental and Courts Buildings, Ottawa, the plaintiffs, Messrs. Saxe and Archibald, by a petition of right, seeking to recover the sum of 100,200 dollars as damages resulting from an alleged breach of contract between themselves and the Crown. The case was heard before Mr. Justice Audette in the Exchequer Court of Canada on the 23rd and 25th May last, and judgment was delivered on the 2nd June. Mr. Eugène Lafleur, K.C., and Mr. Gregor Barclay appeared for the plaintiffs, and Mr. Thibaudeau Rinfret, K.C., was retained by the Council of the Royal Institute to assist the plaintiffs and generally to watch the interests of architects. The Attorney-General, the Hon. C. J. Doherty, appeared for the Crown.

From the statement of claim it appeared that in August 1913 the Canadian Government advertised for designs in a preliminary competition for the proposed buildings, competitors to be British subjects practising in the British Empire. The Government had appointed Messrs. T. E. Colclutt, J. H. G. Russell, and J. O. Marchand to draw up the conditions and instructions and to act as assessors. The conditions stated that from the designs submitted in the preliminary competition six would be chosen by the assessors, and the authors would be invited to submit more mature designs in a final competition, for which the five unsuccessful competitors would each receive an honorarium of 3,000 dollars. The author of the design placed

first would be entrusted with the work, which the Government intended carrying out at once at the usual commission of 5 per cent. If, however, no instructions were given to the successful architect to proceed within twelve months from the date of his selection, or if the proposed work were abandoned, then the selected architect would receive payment of a sum equal to 1½ per cent. on the estimated expenditure. The designs in the first competition were to be delivered in Ottawa by the 2nd April 1914, and the award was to be made within twenty-five days of the date fixed for receiving the designs.

About sixty sets of drawings were sent in, and the assessors made their choice of six. On the 16th April the Minister of Public Works announced in Parliament that the assessors had given their decision. No official notification, however, was made to the successful competitors, and, notwithstanding the condition that the designs were to be kept secret, the whole of the drawings sent in were publicly exhibited in the Parliament House. In the award the architects were designated by numbers only, and the Minister took no steps to ascertain the names of the successful architects, nor were the names ever published. The competition then came to a stop, and no opportunity has ever been given to the selected architects to submit final designs. Messrs. Saxe and Archibald therefore charged the Government with breach of contract, and prayed for a condemnation for damages in the amount above mentioned—which represented their professional charge, under the Architects' Tariff for the Province of Quebec of 1 per cent. on 10,000,000 dollars, the estimated cost of the buildings, for preparing and furnishing preliminary plans. It was agreed that, in order to avoid costs, only their case would be submitted, and that in the meantime the Government would waive any plea of prescription.

The case finally resolved itself into four questions—viz., (1) Whether there had been a contract, (2) Whether there had been a breach of such contract by the Crown, (3) Whether the contract had been abandoned, (4) Whether the contract, even if it existed, was binding upon the Crown in view of the fact that no previous appropriations by Parliament had sanctioned the intended expenditure.

Mr. Justice Audette, in delivering judgment, cited the Order in Council of 14th April under which advertisements were issued and provision made for appointing assessors and defining their powers and duties. That Order in Council his Lordship held to be the foundation and only source from which the assessors derived their authority. The Order in Council provided that the *five* most successful competitors would furnish their preliminary designs and would be entitled to be paid 2,000 dollars each after completing the working plans prepared after the second competition. Then after the second competition the best out of the five would be employed to carry out the work. Clause 6 of the conditions materially departed from the Order in Council in providing that the assessors were "to select from the preliminary sketches *six* designs,* the authors of which are to be invited to submit final designs, and each of the *five* unsuccessful architects submitting a design in accordance with these conditions shall receive an honorarium of 3,000 dollars." That part of the conditions which purported to change the terms of the Order in Council was *ultra vires*, null and void. It was beyond the power of both the Minister and the assessors to vary and change the remuneration of the successful competitor.

Dealing with the plaintiffs' claim of 100,200 dollars, his Lordship said that if the plaintiffs were entitled to recover, the other five competitors who were in the same position would also be entitled to recover upon the same basis. Hence the total amount the Crown would be called upon to pay under the advertisement inviting preliminary sketches would be 601,200 dollars and even then would not have working plans to start the erection of the buildings. His

* Counsel for the Crown admitted that the number was given in the conditions as six, but that he did not intend raising any objection to it.

Lordship asked if that could be said to be the meaning, the spirit of the contract which resulted from the advertisement? If in the light of the evidence an absurd result would be arrived at by adopting a certain construction, the Court must be zealous to reach another conclusion by a reasonable and sensible construction of the intentions of the parties to the instrument (*Yates v. The Queen*). Under such circumstances if there was a reasonable and sensible construction of this alleged contract, and also an absurd one, the Court should lean to the reasonable and sensible construction apart from anything else.

The solution of the controversy, however, his Lordship said, could be readily arrived at from a legal standpoint. Under the Order in Council all that the successful competitors were entitled to recover, as a prize, was 3,000 dollars for their successful preliminary designs, after they had been completed, under the second competition, by working plans. As a condition precedent to any one of the successful competitors in the preliminary competition to become entitled to the 3,000 dollars, the award of the assessors was subject to the approval of the Minister of Public Works, and there was no evidence that the Minister had ever approved of the award or had ever been asked to do so by the plaintiffs. Only one of the architects chosen in the preliminary competition could in the result be successful, and the plaintiffs could not succeed because the assessors were not bound to accept their plans. As a further condition precedent to any enforceable obligation arising in favour of the architect who submitted the best preliminary plans (a matter which still remained undetermined) there must take place a final competition, and the final plans must also have received the approval of the Minister of Public Works. Still a third condition precedent prevented the plaintiffs recovering, *viz.*, there were now six successful competitors; but if in the final competition the plaintiffs were ranked last, or *seventh*, they would be out of court entirely, because the Order in Council only provided for the first *five* competitors, and the Order in Council must prevail over the conditions, and yet the rank of the plaintiffs had never been determined and there was nothing to show where the plaintiffs stood.

Dealing with the question whether or not there were reasonable grounds for not proceeding more expeditiously with the scheme, his Lordship said the Court had a right to take judicial notice of the great war, and he found that the Crown was absolutely justified in not proceeding with the scheme, which would involve an expenditure of several millions of dollars, at a time when the Exchequer was overburdened with the debts occasioned by the war. He found that those circumstances operated as an impossibility of performance, and that the plaintiffs were not entitled to any portion of the relief sought; but through the benevolence of the Crown expressing its willingness to pay them 3,000 dollars, there would be judgment accordingly. The offer to pay 3,000 dollars was made by the statement in defence, and it should carry costs to the plaintiffs up to that stage of the case. All other claims set up by the plaintiffs would be dismissed without costs to either party.

R.I.B.A. Travelling Card.

Members, Licentiates, Students and Probationers desiring facilities to sketch, measure, or otherwise examine notable buildings or monuments in the British Isles in pursuit of their studies can obtain from the Institute a travelling card available for a stated period. Applications for the card must be made in writing to the Secretary R.I.B.A. Cards for travel abroad were instituted a great many years ago, but those now issued for use in the United Kingdom are a recent innovation and due to a suggestion of Mr. Ernest Newton, C.B.E., R.A. [F.].

THE EXAMINATIONS.

The Intermediate.

The Intermediate Examination, qualifying for registration as Student R.I.B.A., was held in London from the 10th to the 16th June. Of the forty-six candidates who presented themselves sixteen passed and thirty were relegated. The successful candidates are as follows, the names being given in order of merit as placed by the Examiners:—

- CHESTER: Harold Wilham [P. 1920], Emberfield, Broom Road, Hampton Wick, Middlesex.
 BUTTON: Eustace Harry [P. 1920], 1 Royal York Crescent, Clifton, Bristol.
 CONOLLY: Harold [P. 1920], Weineth House, Walton, Wakefield.
 KEAY: Cyril Francis McLaren [P. 1917], 21 Danes Hill Road, Leicester.
 OSBORNE: Cyril Charles George [P. 1912], Dept. of Architecture, The University, Sheffield.
 LANDER: Felix James [P. 1913], 157 Baldock Road, Leichworth.
 WERRY: William John [P. 1920], 33 Hubert Road, East Ham, E.6.
 PARKER: John Herbert [P. 1916], Victoria Hotel, Exeter.
 STEELE: Harold Rooksby [P. 1914], 87 Victoria Street, S.W. 1.
 COCK: John Charles Pascoe [P. 1913], 8 Manstow Avenue, Devonport.
 KEMP: Sidney James, M.M. [P. 1919], 118 Albany Street, Regent's Park, N.W. 1.
 WATSON: Edwin [P. 1917], 60 Orchard Road, Erdington, Birmingham.
 METCALLE: John Armstrong [P. 1920], 29 Ruthin Gardens, Cardiff.
 FIELDSEND: Henry [P. 1915], "Masons' Arms," Ackworth, Pontefract, York.
 WRIGLEY: Fred Hildred [P. 1921], 1 Savile Terrace, Stanley Road, Wakefield.
 EASDALE: Robert Geoffrey [P. 1920], "Ardenholme," Smawthorne Lane, Castleford, Yorks.

The Final and Special.

The Final and Special Examinations, qualifying for candidature as Associate R.I.B.A., were held in London from the 23rd to the 30th June. Of the 22 candidates admitted, 9 passed the entire examination, 1 passed Part I. (having elected, in accordance with the Regulations, to take the Examination in two parts), and the remaining twelve were relegated. The successful candidates are as follows:—

- FURDSON: Robert Wemyss [S. 1911], 41 Ladysmith Road, Blackford Hill, Edinburgh.
 HENDERSON: James Murdoch Dalziel [*Special*], 1 Holmston Road, Ayr.
 ESCHAM: Lawrence William [S. 1907], 1 Strathmore, Sutton, Co. Dublin.
 KERR: James Aubrey [*Special*], c/o Architectural Association, 35 Bedford Square, W.C.
 MYSTER: Chimanlal Motiram [S. 1919], 21 Birchington Road, N.W. 6.
 PLUMLEY: Donald John Grant [*Special*], 38 Margravine Gardens, Baron's Court, W.14.
 TELFER: Frank Ignatz [*Special*], 16 Ormonde Mansions, 106 Southampton Row, W.C.
 WILKINSON: Fred [S. 1916], 162 Long Lee Terrace, Keighley.
 WILLIAMSON: John [*Special*], County Hall, Cardiff.
 MACDONALD: Alister Gladstone [S. 1921], 9 Howitt Road, Hampstead, N.W. 3. Passed in Part I.

The Special War Examination.

The Special War Examination (for Students whose studies had been interrupted by the war) was held in London from the 4th to the 8th July. Of the 122 candidates admitted 106 passed and 16 were relegated. The successful candidates are as follows:—

- ADAMS: Ernest Harry, 3 Beatrice Avenue, Norbury, S.W.16.
 ARMSTRONG: Edward Joseph, Lendal Chambers, York.
 ATKIN-BERRY: Henry Gordon, 16 Eaton Terrace, S.W.1.
 AULD: Alexander Cosmo Smith, 7 Milton Road, N.6.
 BAILEY: Clarence Howard, 37 Northview Drive, Westcliff-on-Sea.
 BARBER: Cecil, 76 Kirkstall Lane, Kirkstall, Leeds.
 BARNETT: Richard Reginald, 13 Grafton Road, Acton, W.3.
 BATTY: John, 145 Dover Road, Northfleet, Kent.
 BATZER: Albert Edward, 7 Hobart Place, Grosvenor Gardens, S.W.
 BICKERTON: Walter Crane, 16 Lower Oxford Street, Castleford, Yorks.
 BLACKETT: Johnson, 45 Pool Bank, Port Sunlight, Cheshire.
 BLOMFIELD: Austin, 51 Frognal, Hampstead, N.W.3.
 BOTTING: Milton, Suncroft, Pollard Road, Mitcham.
 BOWES: Trevor Straker, 103 Connaught Road, Roath Park, Cardiff.
 BRADEN: Keith Arnold, Rosedene, S. Woodford, Essex.
 BRIDGMAN: Gerald Soudon, "Carlyon," Cadwell Road, Paignton.
 BROADBENT: Godfrey Lionel, 23 St. Peter's Mount, Bramley, Leeds.
 BROWN: Kenneth Henderson, 22 Desswood Place, Aberdeen.
 BROWN: Leonard John, 172 Ribblesdale Road, S.W.16.
 BRYAN: George Albert, 17 Rosedew Road, Hammer-smith, W.6.
 BERGESS: Haydn Meivyn Rhys, 29 Richard Street, Cilyfynydd, Pontypool.
 BUTLER: Cecil George, 28 Vereker Road, Baron's Court, W.
 BUTLIN: Frederick George Montague, "Nashby," Woodberry Way, N. Finchley, N.12.
 CAMPBELL: John, 54 Hill Street, Withington, Manchester.
 CARTER: Charles Shuley, 124 Sunnyhill Road, Streatham, S.W.
 CHALLEN: Harold Bertram, 73 Oakhill Road, Putney, S.W.15.
 CHANNON: Eric Usher, 34 Bedford Square, W.C.1.
 CHARLTON: Ernest Stewart, 16 Garth Street, Tafts Well, Glam.
 CHEERS: Wilfroy Anson, "Pine-moor," Cornwall Road, Harrogate.
 CHILD: Frederick Austin, 15 Albion Road, North Shields.
 CLARK: Robert Gibson, The Gardens, Fenay Hall, Fenay Bridge, Huddersfield.
 COLLINS: Owen H., 61 Old Broad Street, E.C.
 COOKSEY: Reginald Arthur, c/o Architectural Association, 34 Bedford Square, W.C.1.
 CROSSMAN: Cyril John, 4 The Grove, Blackheath, S.E.10.
 DARBYSHIRE: Thomas Schofield, 173 Crowborough Road, Tooting Common, S.W.
 DAVIES: Idris, Hillwood, Lyonsdown Road, New Barnet.
 DAWBARN: Graham Richards, 8 Station Road, Sidcup.
 DAWSON: Harvey Alexander, 35 Great James Street, W.C.1.
 DEAN: Francis Moorhouse, 22 Kilmartin Avenue, Norbury, S.W.16.
 DONALD: James, Robert Gordon's Technical College, Aberdeen.
 DRAKE: Francis Milverton, State Buildings, P.W.M., Cairo.
 DERAND: Arthur Henry, 22 Orchard Street, W.1.
 EASTON: John Murray, Ulster Chambers, 168 Regent Street, W.1.
 EBBELIN: Albert Edgar, 16 Park Terrace, Nottingham.
 EPRILE: Cecil Jacob, 3 Seamount Mansions, Boscombe Road, W.12.
 FAWCETT: George Herbert, 102 Westborough, Scarborough.
 FORSHAW: John Henry, Mouldale, Burscough Road, Ormskirk, Lancs.
 FREAR: Ernest, 110 Radcliffe Road, West Bridgford, Notts.
 FREW: James Allen, Buntingren, Kilsyth, Scotland.
 GALE: George Alex, 19 Highbury Terrace, N.5.
 GALLIE: Charles Robertson, Robert Gordon's Technical College, Aberdeen.
 GRESSWELL: Hugh, 77 Huron Road, Balham, S.W.17.
 HARMAN: George Thomas, "The Myrtles," The Avenue, St. Margarets-on-Thames.
 HARRIS: Morgan Rhys Howell, Leicester House, 6 Bedford Place, W.C.1.
 HARVEY: John Lyne, 74 Longridge Road, Earl's Court, S.W.5.
 HEDGES: Walter Frederick, P.W.D. Accra, Gold Coast Colony.
 HEYSHAM: Terence Ernest, 44 Lancaster Road, S.E.27.
 HILL: Oliver, 23 Golden Square, W.1.
 HINCHON: Neville, Lyford, Park Farm Road, Kingston-on-Thames.
 HIGGINS: Percival Theodore, 16 Oakfield Road, Stroud Green, N.4.
 HORTH: Harold Edwin, 21 Salisbury Street, Hull.
 HUMPHREY: Harold Walter, Holmewood, Marus Road, Balham, S.W.17.
 HUNT: Stanley, Richmond House, 11 Powell Road, Clapton, E.5.
 HYDE: Sidney, 97 Moray Road, Finsbury Park, N.4.
 JACKSON: Reginald, 1 South Esplanade, Peckitt Street, York.
 JOHNSON: Frank Le Sue, 43 Courthope Road, Hampstead, N.W.3.
 JONES: Harold, Birtton, near Aylesbury, Bucks.
 LAMB: Herbert Arthur John, 26 Porchester Square, W.2.
 LECKINBY: Cecil, 7 Cameron Grove, York.
 LOGAN: James, M.C., 68 Torrington Square, W.C.1.
 MANN: William Roderick John, 2 Lorne Terrace, Sunderland.
 MATHEWS: Benjamin Kenny Ollard, 7 Montpelier Row, Blackheath, S.E.
 MAUGER: Paul Victor Edison, 250a Gloucester Terrace, W.2.
 MEALAND: Henry Anthony, University College, Gower Street, W.C.
 MEIKLE: Joseph Abraham, 9 Causton Avenue, Clapham Common, S.W.
 MENDHAM: John Bernard, 4 Salem Mansions, Moscow Road, W.2.
 MITCHELL: George Angus, 4 Derwent Terrace, Aberdeen.
 MURRAY: Keith Day Pearce, c/o Architectural Association, 35 Bedford Square, W.C.1.
 NEEDHAM: Charles William Cashmore, 29 High Ousegate, York.
 PICKFORD: Leonard, 108 Fernside Road, Wandsworth Common, S.W.
 PINFOLD: Stanley, 317 Camden Road, N.7.
 PLEDGE: Charles Terry, 88 Algernon Road, Ladywell, S.E.
 PROSSER: Donald Sydney, 6 Harvest Road, N.W.6.
 QUICK: Norman Dennis, Leicester House, 6 Bedford Place, W.C.
 RIDGE: Thomas, Bank Chambers, Oswestry.
 SHARP: Francis George, "Ingleholme," Brockley View, S.E.23.
 SHEPPARD: Evelyn, c/o Architectural Association, 35 Bedford Square, W.C.1.
 SKINNER: Cedric George, 25 Sutherland Place, W.2.

SMALL: William, 73A South Side, Clapham Common, S.W.4.

SNELL: Alfred, 21 Tollington Place, N.4.

SOUTAR: Charles Geddes, 10 Reform Street, Dundee.

STARLEFORD: Charles Henry, 26 Hotham Road, Putney, S.W.15.

STOCKER: Alexander, 35 Waldemar Avenue, Fulham, S.W.6.

STREETER: Frederick Robert, 41 Westbourne Gardens, Bayswater, W.

SUNDERLAND: Cyril, 23 York Crescent, King Cross, Halifax.

SYKES: Mark Neville, 75 Cardigan Road, Leeds.

SYMONDS: James Blakeney, 111-113 Denmark Hill, S.E.5.

TAYLOR: Wm. John, Robert Gordon's Technical College, Aberdeen.

TOWLE: Charles Raymond, c/o Architectural Association, 35 Bedford Square, W.C.1.

WHITE: Raymond Charles, 4 Barton Hill, Aylesbury.

WILLIAMS: Leo John, c/o Architectural Association, 35 Bedford Square, W.C.1.

WINCH: Kenneth Mark, 56 Stevenage Road, Fulham, S.W.6.

WISEMAN: Arthur Eric, 15 Glebe Road, Chelmsford.

YEATS: John, 13 Springbank Terrace, Aberdeen.

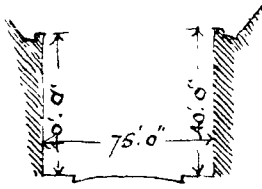
YOUNG: Cedric John Matheson, 42 Tay Street, Perth.

YOUNG: Frederic Newall, 34 Bedford Square, W.C.1.

The Board have recommended that the Ashpitel Prize be awarded to Mr. L. W. Ingham, of Dublin, he being the candidate who has most highly distinguished himself in the Final Examination: and that the Thesis mark of distinction be given to Mr. F. I. Tellery, of London.

The Final: Alternative Problems in Design.

Subject LVIII.



(a) Across a roadway in an important town, 15 yards wide between the curbs, with pavements 15 feet on either side in a street, it is proposed to erect a (temporary) TRIUMPHAL ARCH, in honour of the King, who is to pass that way for some commemorative occasion. The materials used are to be wood for the structure and plaster for the decoration. Colour may be used. Show the method of construction, as well as the finished effect.

Drawings: $\frac{1}{2}$ -inch scale, with key plan and elevation to $\frac{1}{8}$ -inch scale.

(b) A HOSTEL for 50 WOMEN STUDENTS in connection with a University College in a provincial town. Common room, dining room, library, two small parlours (one for the superintendent), cubicle bedrooms, kitchen and accommodation for staff.

Drawings: $\frac{1}{2}$ -inch scale; $\frac{1}{2}$ -inch details.

Subject LIX.

(a) A CITY SQUARE, 150 yards W. to E. and 75 yards N. to S., is to be laid out as a garden—to be turfed and planted with trees and shrubs—the west side to have a long stone colonnaded shelter with seats; provide a drinking fountain. The site was at one time a reservoir and the general area is therefore 3 feet lower than the streets. The square is surrounded by streets 50 feet wide. Those on the east and west run through the square. Lay-out to 32 feet to an inch. Colonnade to $\frac{1}{2}$ -inch and $\frac{1}{8}$ -inch scale.

(b) A METEOROLOGICAL STATION at the seaside, standing near the base of a pier and comprising two offices, a tower for anemometer and a seamen's club (not residential) with bureau of information as to weather, shipping, etc., which is to be connected, by wire, with a wireless station.

Drawings: $\frac{1}{2}$ -inch scale and $\frac{1}{2}$ -inch details, with block plan to $\frac{1}{32}$ -inch scale, showing relation to pier.

Subject LX.

(a) A LOCAL MUSEUM is to be built in a country town—there are no antiquities to be housed—museum to contain collections of the fauna (stuffed) and flora (painted) and insects in cabinets; and there is to be a library to hold the books dealing with the locality. Spaces in the Library for portraits of local celebrities must be taken into account.

Drawings: $\frac{1}{2}$ -inch scale with $\frac{1}{2}$ -inch scale details, including a roof section.

(b) A VILLAGE PUBLIC HALL set back 5 yards from the high road, to seat 200, capable of being used also for dramatic and cinematographic entertainments. Connected with this is to be a matrons' meeting room; kitchen to be used as a room for instruction in cookery; scullery and other offices; boys' workshop to hold two carpenter's benches and two lathes; caretaker's residence; heating by radiators, lighting and cooking by gas.

Drawings: $\frac{1}{2}$ -inch scale and $\frac{1}{2}$ -inch details.

Dates for Submission of Designs in 1921-22.

	Subj. LVIII.	Subj. LIX.	Subj. LX.
United Kingdom	31st Aug.	31st Oct.	31st Dec.
Johannesburg	31st Oct.	31st Dec.	28th Feb.
Melbourne	30th Nov.	31st Jan.	31st Mar.
Sydney	30th Nov.	31st Jan.	31st Mar.
Toronto	30th Sept.	30th Nov.	31st Jan.

Architectural Association School of Architecture

The following awards of Prizes are announced:—

PUBLIC SCHOOL ENTRANCE SCHOLARSHIP, value £63.—R. T. Westenday (Charterhouse).

OPEN ENTRANCE SCHOLARSHIP, value £63.—W. E. Palmer (Royal Masonic School).

A. A. ESSAY PRIZE, open to all Students, value £10 10s.—Miss I. M. Chambers.

FIRST YEAR COURSE:

1st Prize, "Howard Colls" Travelling Studentship, value £15 15s.—A. E. Cameron.

2nd Prize, Books, value £5 5s.—R. F. Orfeur.

Art Subjects, value £3 3s.—R. F. Orfeur.

General Progress Books, value £2 2s.—E. Walmsley Lewis.

Scholarship tenable for one year in Second Year Course, value £63.—L. J. Young.

SECOND YEAR COURSE:

1st Prize, A. A. Travelling Studentship, value £26 5s.—R. E. Enthoven.

2nd Prize, Books, value £10 10s.—Hon. H. A. Pakington.

Art Subjects, Books, value £5 5s.—R. E. Enthoven.

General Progress Books, value £3 3s.—A. S. Knott.

Scholarship tenable for one year in Third Year Course, value £63.—L. R. Hiscoek.

THIRD YEAR COURSE:

1st Prize, "Henry Florence" Travelling Studentship, value £50.—J. C. Shepherd.

2nd Prize, Books, value £21.—C. G. C. Hyslop.

3rd Prize, Books, value £15 15s.—C. S. White.

General Progress Books, value £5 5s.—M. R. H. Harris.

"Henry Jarvis" Scholarship given by R.I.B.A., value £50.—E. U. Channon.

"Alec Stanhope Forbes" Prize for best colour work during year, Books, value £5.—K. D. P. Murray.

Scholarship tenable for one year in 4th Year Graduate Course, value £63.—D. Petrovitch.

FOURTH YEAR COURSE:

Design, 1st Prize, value £5 5s.—Miss E. G. Cooke.

2nd Prize, value £3 3s.—W. Perik.

Construction, value £5 5s.—N. C. Mackey.

Colour, value £3 3s.—Cecil Smith.

FIFTH YEAR COURSE:

Design, value £5 5s.—Stanley Natusch.

Town Planning, 1st Prize, value £5 5s.—Stanley Natusch.

2nd Prize, value £3 3s.—C. M. Masters.

A. A. DIPLOMAS awarded to Stanley Natusch, J. H. White, Bernard George.

A. A. PRIZE IN DESIGN awarded A. J. Saise at the Royal West of England Academy School of Architecture (affiliated with the Architectural Association).

University of London: The Bartlett School of Architecture.

The following awards have been made:—

Lever Prizes.—In Architecture: A. R. Dett. In Town Planning.—First: W. Harding Thompson. Second: E. C. Tasker.

Donaldson Silver Medal.—A. G. Macdonald.

Herbert Batsford Prize.—J. B. Cooper.

Andrew Taylor Prizes.—Second Year Student: F. Jenkins. Third Year Student: S. Hyde.

Ronald Jones Prizes.—Roussaire: F. Jenkins. Medieval: C. P. J. Fahy.

Certificates in Architecture, recognised by the Royal Institute as exempting from the Intermediate Examination, have been obtained by:—

Gwendolen M. Adshead, H. G. Blizard, G. T. Brown, R. J. Bunce, W. C. Childs, V. G. Cogswell, G. A. Crockett, E. E. Edmunds, C. P. J. Fahy, G. H. Fiebler, M. C. Glover, F. Jenkins, J. L. Kelf, E. Kirby, A. L. Knott, O. W. H. Law, H. Lewin, Breta G. Merrydees, R. J. H. Minty, S. I. Palmer, P. N. Patker, L. F. Shroff, J. R. M. Simpson, L. L. T. Sliott, E. R. Taylor, Katharine M. Wells, G. M. Welsh, T. J. R. Winn, F. T. Winter.

Certificates in Town Planning have been obtained by:—H. A. Mealand, E. C. Tasker, R. W. Vines, R. B. Waller (with distinction).

MINUTES. XVII.

At a Special General Meeting summoned by the Council under By-law 65 and held Monday, 4th July 1921, at 8 p.m.—Present: Mr. H. V. Lanchester, Past Vice-President, in the Chair; 27 Fellows (including 6 members of the Council), 31 Associates (including 1 member of the Council), and 4 Licentiates—the Minutes of the Meeting held 20th June were taken as read and signed as correct.

The Hon. Secretary announced the death of Sir Herbert Bartlett, member of the firm of Messrs. Perry & Co., Building Contractors, and referred to his benefactions to architecture as founder of the Bartlett School of Architecture, University of London.

The death was also announced of Robert Pledge Nothy, elected Associate in 1868 and Fellow in 1873, and for many years District Surveyor of St. Matthew's, Bethnal Green, and a member of the R.I.B.A. Board of Statutory Examiners.

The regrets of the Institute for the loss of these gentlemen was ordered to be entered on the Minutes of the Meeting.

The Chairman, in accordance with notice, formally moved the following resolutions.

- (1) That Clause 9 of the Scale of Professional Charges be altered to read as follows:—In the case of housing schemes and buying out estates special arrangements may be required in exceptional circumstances, but for ordinary purposes the scales of fees are the same as those set out in the Ministry of Health's General Housing Memoranda No. 31, No. 51/D and No. 52.
- (2) That the Ministry of Health's General Housing Memoranda No. 31, No. 51/D and No. 52, setting out the fees payable to architects in connection with State-aided housing schemes, as agreed with the Ministry of Health by the R.I.B.A. and the Society of Architects, be incorporated as an Appendix to the Scale of Professional Charges published in the R.I.B.A. KALENDAR.

Mr. James S. Gibson [F.] seconded the motion.

Mr. Herbert A. Welch [F.] moved as an amendment that the matter be referred back to the Council for further consideration.

Mr. W. G. Watkins [A.] having seconded, a discussion ensued, and the amendment having been put to the vote was declared lost.

Mr. Sidney Perks [F.] moved as an amendment: That this General Meeting declines to alter the Scale of Charges by approving Memoranda 52 and 51/D and calls on the Council to repudiate the statement that the Royal Institute of British Architects had agreed to them.

Mr. G. H. Kennard [F.] having seconded, the amendment was put to the Meeting and carried *en masse*.

The amendment was then put as the substantive motion and carried.

The proceedings closed at 10.10 p.m.

The Meeting convened for the 27th June to confirm Resolutions amending By-laws relating to Hon. Associates did not take place, the quorum required by By-law 58 not having been constituted. The Resolutions will be brought up again early in the next session.

Appointment.

The President of the Royal Institute has been appointed a Vice-President of the Public Works, Roads and Transport Congress to be held from 17th to 25th November 1921.

Professional Announcements.

Mr. H. D. Searles-Wood [F.] has transferred his office from 157 Wood Exchange, Coleman Street, to Panters' Hall Chambers, 8 Little Trinity Lane, E.C.4. Telephone: Central 2395.

Mr. H. S. East [F.] has left England for Tasmania, and his address in future will be at the Union Bank of Australia, Launceston, Tasmania.

Mr. Cyril A. Fary [F.] has transferred his office to 12 Hart Street, Bloomsbury, W.C. Telephone: Museum 5685.

Mr. W. T. Loydell [F.] has opened an office at 28 Albert Street, Rugby.

Mr. Edwin J. Dodd [F.] notifies change of address from Exchange Buildings, to 51 North John Street, Liverpool. Telephone: Bank 3479.

Mr. Henry J. Chetwood [F.] has transferred his office from 5 Bedford Row to 1 Montague Street, Russell Square, W.C.1. Telephone: Museum 196.

The Architects' and Surveyors' Assistants' Professional Union have removed from Sanctuary House, Tothill Street, to 36 Victoria Street, Westminster.

Erratum.

Notice of Nicholas Hawksworth, p. 485, for Castle Howard Chambers, read Castle Howard, Yorkshire.

A YOUNG Danish Architect now in this country is desirous of entering an architect's office for the purpose of gaining experience in English work. Has a good knowledge of construction and design. Was for 18 months at the School of Architecture of the Royal Academy, Copenhagen.—Address Box 471, c/o Secretary R.I.B.A., 9, Conduit Street, W.

ASSISTANT in private practice, during temporary slackness of business wishes to get into touch with more fortunate members of the profession who unwilling to temporarily increase their staffs, would be glad to employ the services of a draughtsman through postal channels.—References in demand.—Address Box 125, c/o Secretary R.I.B.A.

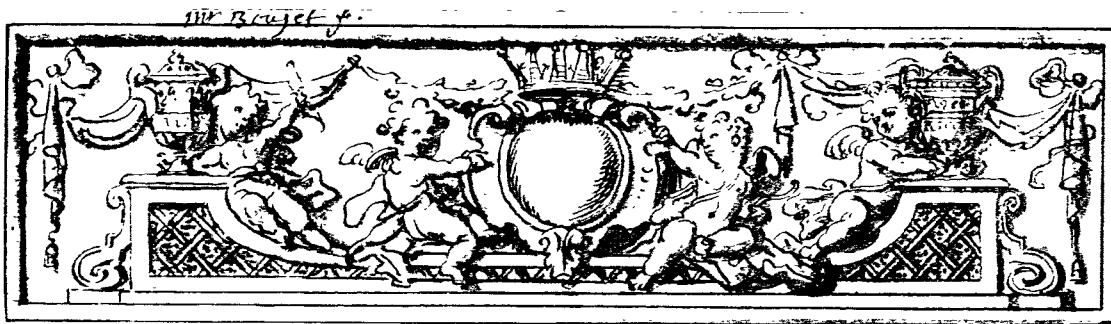
ARCHITECT ex-officio desires appointment. In addition to architecture qualified to undertake research, secretarial and publicity work. Extensive experience in housing. Highest references given.—Address Box 671, c/o Secretary R.I.B.A.

ASSISTANT Architect seeks post abroad, preferably Near East; A.R.I.B.A., unmarried.—Address Box 187, c/o Secretary R.I.B.A.

LENTEN Office, ground floor, Belgrave Road, near Victoria Station, £2.2s. per week; electric light and phone; quarterly tenancy.—Apply G. De Wilde, c/o Secretary R.I.B.A.

POSITION as Office Boy in an Architect's Office, wanted for youth of 16 with taste for draughtsmanship. Salary required 15s. per week.—Address Box 257, c/o Secretary R.I.B.A.

A FIRM of Architects having commodious offices in Russell Square, with more accommodation than they require, would be glad to share same with other Architects, subject to approval of their Landlords. One or two good sized North-lighted rooms, each with store cupboard, could be allotted, at a rent of 25s. per annum per room, including central heating, electric lighting and cleaning.—Address Box 271, c/o Secretary R.I.B.A.



THOUGHTS ON THE SOLIDARITY OF ART.*

By WILLIAM J. LOCKE [*Hon.A.*], Secretary R.I.B.A. 1897-1907.

A Paper read before the Liverpool Architectural Society, February 1921.

IN these days of social convulsion and bitter struggle, when it seems that the only ideal left us by the war is one almost of personal physical salvation, it may seem incongruously idle to devote one's thoughts to the consideration of such fanciful things as pictures and poems and beautiful buildings. The finer instincts are deadened by the clamour of bodily needs and the pain of mental anxieties. The future—even the immediate future—what the next few years may bring forth, no man can foretell. No man can say definitely that whatever fortune he has will not be taken from him, that his old age is assured, that after his death his wife and children will enjoy their present comfort. Without desiring to be unduly pessimistic and to reduce this gracious assembly to tears at the outset of the few remarks it is my privilege to make, I must take it as a postulate that these are the darkest hours through which the human race has yet passed, and it is marked by the same phenomena as all other black crises in the history of civilisation.

There is a section of the community which frankly says: "Let us eat, drink, and be merry, for to-morrow we die." There is another section with the hunger of evil centuries in their eyes who would sweep down and plunder the wealth of the world. There is a solid mass of human beings who are at their wits' ends to maintain the existing fabric of civilisation and at the same time to keep their own bodies and souls together.

The latter is what the prophet Isaiah called "the saving remnant," and to it belong the more or less sober folk like ourselves who are gathered together in this room. It is this remnant, vast though it is, but still a remnant, which entered the era with high ideals and have come out of it apparently with none. The Bolshevik section alone pursue an ideal. We pursue none. Their mad dream of a reorganised planet by means of Marxianism run mad is positive. All our aspirations are negative. Our cry is not "Let such and such things happen," but "For Heaven's sake let such and such things *not* happen." The ideal of the New Jerusalem, of a "reconstructed world," has faded like the baseless fabric of a vision. We have been faced and are faced with things too grimly material, both social and personal, for us to look beyond the sordid moment.

So the question does very seriously arise: "Is this the time to concern ourselves with the trivial theories and philosophies of Art?"

I am fully aware that architects are in a peculiar artistic position. You will all remember the tremendous polemic of years ago, which split the Institute—the question whether Architecture was a profession or an art. Happily—it happened to be during my secretaryship—the only sensible compromise

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was made, and the Art secessionists came into the fold with their educational theories gratefully accepted. But it was a compromise. The question has not yet been settled, nor ever will be, because it is insoluble, being based, I think, on a fallacy.

Yours is the only one of the forms of Art which is utilitarian. In its utilitarian essence the question of beauty does not arise. You are a practical necessity. People must have houses to live in, churches to worship in, taverns to drink in, and town halls to raise the rates in. No matter how materialistic or degraded a civilisation may be, it must provide buildings of a certain kind, and these must be erected according to physical laws of construction or they would tumble down. Therefore the utilitarian side of your calling would persist.

But the great and wonderful mystery of your fundamentally utilitarian craft is the ineradicable instinct of the builder of all ages and all climes to invest his building with some immaterial quality that should not only signify in some way the use to which the building should be put, but express in terms of abstract beauty the spiritual roots of those needs of mankind which called the building into being. In this way Architecture is divorced from its material aspect and, as the most mysterious and beautiful of all the arts, is embraced in the question I have propounded.

Is this a time to absorb our souls in the perfection of a moulding or the jewelry of a phrase? Of course, we creative people must carry on, in order to earn our own living. We are trained to our craft. We should most probably make a mess of any other. If an unhandy man like myself turned carpenter, or your President turned butcher, I don't know which resulting mess would be the more gory.

But that is not the point. The quiddity—to use Charles Lamb's delightful word—the quiddity of the point is this: Are we as artists merely fiddling while the world is burning? What is the use of us? What is the meaning of us? Are we, or are we not, a vital principle in the motives of a world groping its way through chaos to the light?

Now, before trying to answer these enormous questions, it may be well to consider why I, a professional novelist, have the temerity to identify myself with you, a body of professional architects, as an artist. *Prima facie*, and according to a thousand semi-definitions of the most elusive and indefinable word in the world, "Art," there seems to be little in common between men following your pursuit and men following mine. But there is everything in common. Everything in life that matters.

And for this reason. *There is only one art.* Whatever definition you may fancy of this extraordinary word, you must come at length to the spiritual. You must come at length to interpretation of human life. You must come at length to an interpretation of human life in all its myriad phases of emotion and aspiration that is entirely dis severed from scientific law. You must come at length to the eternity-wide difference between the artist (even in the vague, recognised sense of the word) and the inventor. The gentleman who watched the nodding lid of his mother's kettle and then dreamed great dreams which materialised in the steam engine was a marvellous man whose memory the world venerates: but he was not an artist. He satisfied the unvoiced material needs of men, but he did nothing towards the solution or the interpretation of their spiritual cravings.

There is the same difference between the literary man and the literary artist. And here, if I may be allowed, I should like to protest against the common unintelligent conjunction of the terms Literature and Art, as if the two had anything to do with each other. One might as well conjoin engineering and music. It is one of those phrases which darken counsel. It extends indefinitely the conception of the word literature and narrows that of the word art to painting and sculpture and embroidering vestments for bishops. It lumps the great poet and dramatist with the worthy person who digs among Greek texts and denies him the essential quality of the artist. It confuses thought. It brackets Thucydides with Æschylus, and Huxley with Keats. Now Thucydides and Huxley are pre-eminently men of literature, lights of literature. Their thought is expressed in the crystal limpidity of phrase and exquisite choice of words. But they have nothing to do with Art—nothing more than James Watt above referred to. On the other hand, although Æschylus and Keats, their medium happening to be language, take their rank

in literature, yet their proudest supremacy is their unchallenged position in the realm of art. The historian and the scientist record the doings of man in the realms of nature. The dramatist and the poet interpret visions.

No matter what path you tread in pursuit of the elusive will-o'-the-wisp, Art, you come to Shelley's skylark—or rather to his poet—for the skylark, if one descends to common sense for a minute, has no more claim to be an artist than a steam syren or a hippopotamus—you come to his poet —

*Like a poet hidden
In the light of thought,
Singing hymns unbidden
Till the world is wrought
To sympathy with hopes and fears it heeded not.*

That is to say, you come, at the very end of all your inquiries, to the transcendental.

Richard Jefferies, the author of *The Gamekeeper at Home*, a very sensitive artist, speaks of some sculptured lions as being better than real lions, "because," he says, "there has entered into them the soul of a man." We come as near as ever we can to a definition of Art by saying that the function of the artist is to express the transcendental in terms of common life. Is the painter doing this more than the musician? The sculptor more than the poet? The architect more than the novelist? Surely we are all engaged in the same absorbing task. All of us in our true selves. Is there a landscape painter who does not seek to set down by means of paint or canvas the light that never was on sea or land? A poet to whom that same light is not the incarnation and the poet's dream? A sculptor who does not strive to invest his marble with a radiation—invisible, yet-to-be-felt—of the spirit? A musician who does not seek to capture the music of the spheres? An architect who does not feel the impulse to express in stone the spiritual significance of the building which he is called on to design? The novelist who does not feel it to be his task to put into words his interpretation of the emotions, the sorrows, the joys and the illimitable aspirations of mankind?

This is true of us in our true selves. The measure of our transcendental attainment is that of our artistic greatness. The slinger of pot-boiling paint is not a Raphael; the degraded cacophonist who composes jazz music, not a Sebastian Bach; the writer of the serial in your evening newspaper, who describes his heroine's lips as being red as a fresh wound, does not rank with Dickens and Meredith; the local architect—let us be gentle, and call him the village architect—who put up, as I saw a few months ago, staring across the green precincts at the tower and south front of an old minster, one of our great English dreams of God in terms of stone, who put up a nightmare of a composite Byzantine-Georgian-1840-Gothic nonconformist chapel, does not sit in the Valhalla of the serene souls who created the immortal fabric opposite.

Yet in all of these—you may call them mis-creators—lies the divine gem of creation. In their essence, in their souls, in the original impulse that sent them on this track of creation—no matter how they failed or prostituted themselves by the way, we must recognise them as our brothers. Essentially — bad poet, good poet; bad painter, good painter; bad architect, good architect; bad novelist, good novelist—we are all striving after the same thing. We are all striving to express the transcendental in terms of common life.

We are all artists. There is only one art. If we are to be of any use to mankind, as artists, we live or die together. So, incidentally, we come back to my little thesis: do we mean anything in this world now, for better or worse, under that process of reconstruction? We are all, we creative people, who ever have the expression of the transcendental at the back of our minds, so banded together, to my way of thinking, that perhaps it might be worth our while for a few minutes to look a little further into this theory of the solidarity of art.

I have put forward the proposition that all of us—poets, painters, sculptors, musicians, architects, novelists—are pursuing the same object. Naturally we are doing it in different ways. Technically

we are doing it through different media. The writer in words, the sculptor in marble, the architect in stone, the musician in sound.

At first sight this diversity of media would seem to disintegrate us altogether. But when we look into the matter more closely, when we begin to ask ourselves: what have I, a painter, technically, to do with a musician? What have I, an architect, technically, got to do with a novelist? we come, perhaps with a shock, to a set of incontrovertible cardinal truths. Not only is there only one art in its eternal purpose. There are eternal, immutable laws governing that one art. Law is a human thing. Metaphysically, it is the formulated sublimation of the universal human judgment of countless centuries. Theologically, it may be man's formulation of his insight into, or revelation of, the Divine will. Against it there is no appeal. You, devoted to your noble and exquisite art of architecture—what would you say were the canons of your art? Without wishing to dogmatise, may I suggest a few?

Design: You must set out to do something. To create out of your brain a thing that has not before existed. It must be the crystallisation of a dream.

Unity: You can only express one thing at a time. You cannot put up a building that is both a church and a public-house.

Proportion: The parts of your design must be significantly inter-related. Your bathroom windows must not be twice the size of the main entrance to your house.

Light and Shade: You cannot work entirely in plane surfaces—even in a workhouse or a factory—or in projecting masses—or in voids. You must preserve a harmonious relation between them—or result is a stable for a nightmare.

Restraint: You must know when expression must surrender to suggestion. No matter with what sense of joy you may wish to invest a building, you would not put high-relief carving on the treads of a staircase.

If we were to wander further into the realm of aesthetics we could formulate various other canons of your art. But for our purposes these are sufficient. Is there an art with which we are acquainted which is not definitely bound by these five alone: Design, Unity, Proportion, Light and Shade, Restraint.

Painting is the most obvious art. We can see at once where things go wrong. As a matter of fact it is so obvious that it serves as an aesthetic illustration, and the terms of its technique—such as tones and values—are used critically with reference to other arts. Well, in painting these five canons apply.

Sculpture: In this, the severest of the arts, there is no possibility of escape from them.

Music: A composition must be *designed*. It must have a *unity* of purpose. The expression of its minor emotions must be *proportioned* to that of its main emotional theme. It cannot, no matter how jazzy, be *all fortissimo*; nor no matter how maullin, *all pianissimo*. It must be the subtle variations of *Light and Shade* in terms of sound. The most unmusical person must appreciate the light and shade, say, in the only too familiar Dead March in *Saul*. Again, it must suggest sometimes instead of express. For when this canon of *restraint* is violated, we suffer offence. Blatant examples of this lack of restraint occur in the works of the typical pre-war Teuton, Richard Strauss. For instance, in his *Til Eulenspiegel*, the violins make a "tekk!" to indicate the death gurgle of the hanged rogue. To the judicious it is a grief, and to the sensitive an offence.

We come now to literature. The Drama. Aristotle practically settled the canons of dramatic art over two thousand years ago. But they are the same old canons, and what is true of the drama is true of the novel. You must design it as you do a building. It must have its unity of purpose. It must obey its laws of proportion and light and shade and restraint.

And with regard to *restraint*—I may be pardoned for once more referring to the immortal and the supreme instance of this canon in literature: Dante's *Paolo and Francesca*. The lovers, not yet guilty, turn over together the leaves of the love romance. And they shut the book. And their whole

story is told in a line. "They read no more that day." Dante says no more about the incident, but the meeting of the lips of the two and the clasp of their arms have been the heritage of the quickened imagination of mankind for six or seven hundred years.

Please do not think I am wandering away from my thesis. I have tried to show that spiritually all of us—from architect to novelist, or novelist to architect—for goodness' sake conceive us set in a circle and not in a straight list in order of merit—with the practitioners of other arts ranged in and out and round about among us—are seeking to do one elemental thing through divers temperamental media. I have tried to prove that, though the media may be different, yet we are all bound in our *doing* by one set of eternal laws.

There is therefore but one art. But how many of us recognise this supreme fact? A more disintegrated body than that of the artists of this country it would be difficult to imagine. And all the integrating societies, such as the Arts and Crafts on the one hand and the purely literary societies on the other, are only making towards this disintegration. Their outlook is too narrow and their aims, in the wider sense, are parochial. We are each carrying on our particular work without reference to that of our brethren. The painter does not concern himself with the work of the poet. The musician lives in his world of sound, and his personal acquaintance with a sculptor is merely a social accident. The architect, apart from fortuitous personal predilection, has no living interest in the most cognate of the literary forms of art—the great drama, as architectonic as a cathedral.

It was only the other day that I met, for the first time, one of our most famous sculptors. He seemed to have vaguely heard my name as that of a writer of novels: while I, to my shame, could not recall one of his works. He might have been a sea-captain and I a ladies' outfitter for all there seemed to be in common between us. It is all wrong.

And now that I am, for the first time for many years, addressing a body of architects, unbound by old official shackles, I should like to get something off my chest. I feel in the position of the old actor in a stock company in which he had never risen beyond servants' parts—"My lord, the carriage waits"—who was given a benefit on his retirement from the stage. The play went well. His cue came—the cue for his last appearance. He entered, spoke his familiar line: "My lord, the carriage waits:" and then he marched swiftly down to the footlights and said: "And what I wish to remark is, that the man who lays his hand on a woman except in the way of kindness is unworthy of the name of *man*." At last he had his chance of speaking a leading man's lines. At last, like the old actor, my chance has come.

Now, very germane to a mutual understanding among artists is the veil of secrecy drawn over your profession. For twelve years, as Secretary of the Royal Institute, I used to hear groans on every side over the non-recognition of the architect. To everyone who gave me the privilege of friendly intercourse, I used unofficially to protest. "How on earth," said I, "can you expect the public to recognise you if you set up statutes enforceable by laws and penalties to prevent them from recognising your work?"

People *are* interested in architecture. They pass daily by a building in course of erection. It has fine qualities. They see it grow in beauty and meaning before their eyes. But from whose brain this beauty has sprung they have no idea. They have no means of knowing. They come and ask the executive official of the Institute. And he can't tell them. The builder splashes his name across the façade. The uneducated believe the builder designed it. The sophisticated are baffled. "Why on earth," I used to say, "don't you do the same as the builder and put your name on a board. Why should you be born to blush unseen? Why should you be more sensitive than the poet who has his name set out in great capitals on his book cover and in the publisher's advertisements?"

I hammered at this for twelve years, and never obtained a satisfactory reply. You may realise my malicious joy when, some months ago, I saw in the revised "Professional Conduct and Practice of Architects" the following:—

"He may exhibit his name on buildings in course of erection." It is true this permission is modi-

fied : " provided he does it in an unostentatious manner." So there is still the sensitive plant's shrinking from publicity. But the principle is established : and now there is no reason why your works should not be known to your fellow-artists.

To return to the general discussion. I hope I may not be misunderstood. I am not saying that every artist should practise all sorts of forms of art with the many-sidedness of a Leonardo da Vinci or a Michael Angelo. That is absurd. On the contrary, it is best that every man should devote himself to excelling in his own craft. But it is of vital importance in social conditions like the present that every one of us should be keenly conscious, and act as though he were keenly conscious, of the solidarity of art. The one art is a mighty force. If there were some means of organising it, co-ordinating the efforts of painter, musician, architect, poet, so that they all could be brought into one sociological focus, its influence would be immeasurable.

How this is to be done I don't know. An academy of all the arts is bound to be academic and exist only for the preservation of technique. We need a great organisation for the conservation of the Spirit. A vast trade union in which there should be no rules as to wages or limit of output or the right to strike. It should be generously all-embracing, unselfishly educative, in all its elastic superficialities in touch with the great social mass. It should be a Freemasonry without other secrets than those only dimly divined which each of us keeps in his soul for the execution of his peculiar work. A Freemasonry too subtle for signs and passwords, yet very real in the mutual recognition of brethren, and very potent in its universality of beneficence. It would carry on, in a word, the eternal propaganda of beauty.

At the beginning of this address I asked what is the good of us in this new world driven mad by the struggle for material existence. The answer is that man does not live by bread alone. The spirit must have food or it perishes. And there is a strange side of the spirit of man which modern religion does not touch. The days of Fra Angelico and the Comacine masters are long past. Ever since the world began mankind has craved some revelation of beauty : he has demanded that the life around him should be interpreted in terms of beauty. The only gleam of hope in Russia of to-day is the notorious fact that the artist is recognised as a vital organism in the all but decrepit body politic, and the singer and the dancer are given extravagant rations of food.

Should there be revolution in this country, and all our works of art be destroyed, as vanities of the capitalist, our duller population would not at first realise this fact. It would dawn on them gradually as an indefinable craving for they knew not what. And the first man who caught them with a brave poem or a gay tune or a vivid picture would step at once into his artistic kingdom.

The artist does matter. He who writes a little story of Mary and John, or he who builds a little house on a bit of suburban land for Mary and John to live in. If the story has the touch of romance, if the little house has the magical expression of welcome and intimacy and home—both story-teller and architect provide that strange responsive throb in the heart which humanity, always feminine and passive, is for ever expectant from the artist—*man*.

The artist matters so much in the continuous regeneration of the world that every man living to-day who practises any form of art should take counsel with himself and search out his own sincerity. He is dealing not with words or bricks or pigments or vibrating catgut. He is dealing with the destinies of mankind. To him is entrusted the divine gift of revelation : he may reveal it in a thousand ways, in a thousand mannerisms ; he may have a thousand weird gospels. But so long as he is sincere in his interpretation of life, mannerisms and gospels are as chaff before the wind.

The symbolists of literature, the dadaists of painting, the pseudo Goths of architecture—in fact, all schools, with their extravagance of assertion and their fierceness in quarrel, pass away : and the consensus of human judgment picks out from the harvest the little grain of the sincere and plants it for immortal growth. That is why this conscious solidarity of art, for which I am pleading, is of such supreme importance in these dark days of the civilised world.

ARCHITECTURAL EDUCATION.

By LIONEL B. BUDDEN, M.A. [A.J.]

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School of Architecture, University of Liverpool.

Read at the R I B A Conference at Liverpool, 25th June 1921.

WHEN I was honoured with the invitation to deliver before this Conference a paper on architectural education, it was intimated to me that what was required was not an elaborate thesis attempting a philosophical survey of the entire subject, but simply the statement of a particular case—the case for the present academic system of training in architecture. To that task, therefore, I shall address myself. I can, of course, only attempt to do so very briefly and imperfectly, as, within the limited time at our disposal, it will be impossible to do more than touch upon the most salient and elementary aspects of the subject.

A reasonable system of training in architecture should, I submit, itself provide satisfactory answers to the following three questions:—

- (1) What are the subjects which the architect, *qua* architect, is required to know?
- (2) In what way should they be taught?
- (3) Under what conditions?

Those three questions raise, I think you will agree, issues that are fundamental to the whole theory of architectural education. The academic position in relation to them—the academic position that is, as I conceive it to be—I shall endeavour to put before you.

What are the subjects which the architect *qua* architect is required to know?

To answer this question, we must first define the functions of the architect. His chief function may theoretically be summarised in a sentence. It is his business, on the basis of a programme of practical and spiritual needs and working through the medium of constructional materials, to devise and erect buildings which shall be efficient for their purpose, and which shall be distinguished by beauty. He is then, on this assumption, first of all required to be an expert in three branches of knowledge. He should understand planning in all its aspects: he should have an intimate acquaintance with materials and construction—with the nature and behaviour of materials under the varying conditions of practice and with the principles and methods of their employment; and he should be able to embody in æsthetic form, to fuse into an æsthetic whole, programme, materials and construction—in a word, he should know how to design.

But the complete architect is called upon to do even more than is indicated in this extremely condensed summary of his duties. He is expected to be thoroughly conversant with a number of technical sciences relating to programme or to construction, such as surveying, sanitation and hygiene: to know and observe the administrative routine and the legal and financial procedures involved in the practice of his profession: and to be competent to present his designs, in the first instance so that they can be under-

stood and visualised by his clients, and in the second so that they are completely explicit to those who undertake to carry them out. He is required, in effect, to be adequately skilled in presentative technique, which involves on the one hand a grasp of perspective, sciagraphy and rendering, and on the other familiarity with the methods of preparing working drawings. To the primary qualifications of the ideal architect, a knowledge of all these subjects must therefore be added.

Now it will be obvious—common sense and your own experience must both confirm it—that omniscience in the total field of learning which I have outlined is nowadays humanly impossible for any single member of the profession. In antiquity, during the middle ages, throughout the Renaissance, and down even to the beginning of the nineteenth century, it was possible for an architect to acquire all the information that existed under the several heads that I have enumerated. It was possible for him to do more—to make excursions into other arts and sciences and to practise as an engineer, architect, painter and sculptor with equal success. But to-day the immense elaboration of the art of architecture, its vastly increased resources, and the complex nature of the demands made upon it, altogether prohibit any individual from achieving a complete mastery of all the separate elements of its total content. The modern architect is more and more forced to restrict his aim within the sphere of architecture itself. He must select the province that he will make his own, and be content with a knowledge of the general principles that govern the departments of the remainder. It is still possible for the domestic practitioner, whose commissions are of a relatively modest kind, to cope single-handed with such diverse problems, constructional, æsthetic and so on, as he may encounter. But for the architect engaged in more varied and complicated work upon a bigger scale, that course is simply out of the question. Specialisation and collaboration—whether acknowledged or not—are the only means by which a practice of any considerable size and complexity can, under existing conditions, be conducted.

For that state of affairs, then, which we are powerless to alter if we would, architectural education must now provide—and the academic system does provide for it. Because no individual can become expert in all the branches of architectural knowledge as they have developed, and because all these branches are yet integral and essential parts of architecture as a whole, the academic school seeks to frame its courses in such a fashion that its graduates shall collectively complement each other's capacities in practice.

There are, broadly speaking, three classes of candidates for admission to the profession: those whose interests strike an approximate balance between the constructional and the æsthetic aspects of architecture: those who are chiefly attracted by construction: and those whose main pre-occupation is with design. Two numerically smaller categories also exist: the

candidates whose natural aptitude is for the legal and administrative side of practice—they tend to group themselves with the constructionalists; and the candidates who are first and foremost draughtsmen and colourists—they inevitably ally themselves with the designers.

The main triple division here indicated corresponds to the main triple division that obtains in practice—the local practitioner, the constructional expert and the designer; and to them may be added the professional arbitrator and the perspective colourist.

To meet the needs of these three main groups and of the smaller groups related to them, the academic system offers three courses of training, each of five years' duration and all identical in character up to the end of the third year: for a basis or common knowledge is indispensable to efficient collaboration in the end. The first course is one that is taken at a pass level and is framed to prepare graduates for the simpler type of general practice. The other two courses lead to honours or distinctions—in the one case in construction, in the other in design—and are intended to provide the initial equipment necessary to specialist work in those spheres. All three courses are purely technical, and comprise only such subjects as relate directly to architecture; and each involves office experience.

The first three years, the curriculum of which is common to all the courses, comprise, first, continuous studio-work in architectural construction and in design, supplemented by measured studies of existing buildings; and secondly, lectures in the history and archaeology of architecture, in the theory of architectural planning and design, in applied geology, physics and mechanics, in construction (including laboratory demonstrations in strength of materials), in surveying, sanitation and hygiene, in descriptive geometry, sciagraphy and perspective, and in presentative technique and rendering. Students taking the so-called "ordinary" course then proceed during their fourth and fifth years to further studio-work in design and construction, the latter involving the preparation of working drawings. Lectures on construction, on specifications, estimates and contracts, on professional practice, and either on decoration and furniture or on the history of ancient art form the remaining part of the school curriculum for those years. In the fifth year a thesis is required showing advanced and individual work in *one* of the following alternative subjects—either in historical architecture or in the theory of architectural design, or in science as applied to construction or in architectural design itself. Students who specialise at the end of their third year, if they are constructionalists, take a course which goes beyond that of the pass type. It prescribes as additional subjects, reinforced concrete and quantity-surveying and limits the choice of thesis to a special study of an application of science to definite problems in architectural construction. Similarly, candidates registering for the course with honours or distinction in design must take, in addition to the subjects of the ordinary cur-

riculum, lectures on advanced architectural programmes, civic architecture and landscape design, and must offer a thesis which is either a direct or indirect exposition of architecture as an art. In all three cases a period of six months in each of the last two years has to be spent in the office of a practising architect—unless civic design be taken as an optional additional subject—when the whole of the fourth year must be spent in school work.

Separately and together these three courses constitute the academic answer to the first question, what are the subjects which the architect in his professional capacity is required to know? Let us now proceed to the second: in what way should these subjects be taught?

As the pupillage system may be said to be *in extremis* in all but the most remote parts of the country, it is not necessary to waste words in exposing its defects or in emphasising how inevitable was its supersession by scholastic training in architecture. Issues less finally determined may be discussed with more profit. The new academic courses have provoked certain criticisms which it is important to meet. It is said that they are over-elaborate, that the programme of studies set forth in them is too heavily loaded, and that they tend to make the teaching of architecture an analytic rather than a synthetic process.

To the first objection I would reply that none of the subjects comprised within the courses I have outlined has been included from a desire to inflate the importance or exaggerate the difficulties of training in architecture. They are all integral parts of architectural education as a whole, can be shown to be so and must be accepted as such.

The second criticism—that the programme of studies is too heavily loaded—has, I would claim, a justification that is more apparent than real. To architects not actually engaged in teaching work the schedule of subjects may seem very lengthy. But it must be remembered that the complete courses of study extend over five full years. Only the subjects of major importance run throughout the entire length of any one course. Others occupy only a portion of the whole—some extending over two years, some over one year, and some over no more than a term. They are arranged on a progressive interlocking system, and so arranged they do not impose an excessive strain on the capacity of students.

With regard to the third contention—that academic education in architecture is tending to become altogether too analytic, that it is putting in watertight compartments subjects that ought to be treated in the closest possible connection—I would submit that this is not so. The studio-work in an architectural school, if it be properly controlled and developed, is the synthetic product of the whole teaching of the school. In it is, or ought to be, summed up the knowledge which it is the aim of the separate lecture courses to communicate. Those lecture courses must themselves treat of their own proper subjects individually and

separately: for there is no method, of which I am aware, whereby one subject can satisfactorily be taught in terms of another. But these distinct branches of knowledge can be brought together and united in the work of the school studio. And under the new academic courses they are so united.

I come now to the last of the three questions to which I originally proposed to attempt an answer: under what conditions should architectural education be administered, by what bodies, under what auspices? The requirements of the kind of training that I have endeavoured to describe point, I would maintain, to the same conclusion, that the Universities alone, actually or potentially, possess the means to satisfy the whole claims of architectural education. Those claims, you will agree, are not merely technical; they are moral also: and it is only fitting that the courses I have outlined should be crowned by an academic degree. The dignity of our profession and its right to public esteem alike demand it.

Two years ago the Royal Institute of British Architects stood committed to a centralised system of examination which deprived those actually responsible for the real work of architectural education of a legitimate share in its ultimate control. That and many other evils were the consequences of the system then maintained. Subsequently, the Institute, under sufficient safeguards, very wisely, and with infinite benefit to architectural education generally, decided to delegate, to such authorities as might justify the privilege, the qualifying powers which they are most competent to exercise. By this act of high policy the Institute took an initial step of immense importance. It recognised that the administration of architectural education should rest, not upon a metropolitan, but upon a national basis: it resolved to use, not simply the resources of London, but those of the whole country.

Still further and not less pressing obligations remain to be fulfilled. In the government of architectural education the Institute has adopted and, in certain cases, has put into effect the principle of devolution; it has not yet, however, determined whether the educational destinies of the profession shall ultimately be entrusted only to bodies enjoying the highest status and prestige, or whether instruments of lesser authority shall be its recognised agents. Upon its decision in this matter the future welfare of the profession will depend. That at least must be the view of those who believe in the final value and paramount claims of academic education in architecture.

DISCUSSION.

Professor A. C. DICKIE [A.] said he was not quite sure whether he understood Mr. Budden rightly with regard to the question of specialising after the second period, during which the architect in embryo was supposed to make himself acquainted with the main thread of his course. He was not sure whether the suggestion would meet with approval in the country, but, on the other hand, the practice of architecture by clubs consisting of members who were each qualified to deal with the various problems which arose out of architecture in its big sense might be of great

benefit to their art. He wanted to make a point of that, because on that depended very largely any system of education which might be formulated, and it involved the success or failure of specialised education. It seemed to him that three years was far too short, and it would be much more acceptable to have a course of education in its general sense running the whole of the five-year period, after which any man could specialise on any particular subject. After all, one must bear in mind that there are limits to education, not only in architecture but in everything else, and academic education suffers a great deal from criticism levelled at it by architects: a little want of sympathy was shown for what academic education could do and what it could not do. A man entering an architect's office after a three years' course would not be of very much use for a year at least. One often heard such a complaint as "We have such a man and he cannot trace: we hope that, in time, even an academically trained man may learn to trace." The question of co-ordination of architectural courses was very important, but even in the best schools co-ordination was not anything like so complete as it ought to be. Building construction lectures ought to be given and problems dealt with in the same room and cheek by jowl with designing. He did not quite agree that the University was the only place where architecture was taught as it should be taught. That might be the case in most centres, but they had the example of the great success of the Architectural Association, which was entirely self-supporting and independent and free from the somewhat irksome forms of ordinary academic usage, which were not always applicable to architecture. He hoped the Architectural Association would always retain its independence of action devoted solely to the problems of architectural education. As the only great school outside the Universities it wielded a power for good generally.

Professor C. H. REILLY [F.] said he wished to pay a tribute to his colleague Mr. Budden. Every one present must have been struck not only with the clearness of Mr. Budden's expression but with the keenness of the intellect which lay behind it. It was a great thing for the Liverpool School of Architecture to have a man like Mr. Budden on its staff. As most people knew, he was the lecturer in theory at the school, and while his big book on the subject was in course of preparation the Liverpool students had the benefit of his work in his lectures. Liverpool might, therefore, proudly say that it already had its Guadet. Professor Reilly went on to say that he was disappointed to hear Professor Dickie—Professor of Architecture in no mean University—say that a University was not always the ideal place for a school of architecture. He, Professor Reilly, thought it was, both for the staff and the students. The former lived in an atmosphere where it was possible to achieve detached views among colleagues engaged in extending the boundaries of knowledge in all directions, while the latter were being trained among the young doctors, engineers and lawyers of their generation. They made friends among those who might one day be clients, but whether this was so or not they, too, broadened their horizons by such contacts. He did not, therefore, see why architects should not in future be as proud of their degrees as any other graduates, and why these degrees should not in time carry as much weight not only with the world outside but in the profession as well. He was sincerely sorry that the Architectural Association was not in a position to grant degrees. They would have everything to gain and nothing to lose by affiliation with a University, and he hoped some day it would come about. If it did they would not find the University form of constitution, with its senate and faculties, a hindrance to any well-thought-out schemes. It was a form of constitution which, while it insured that changes in curricula should be carefully considered, gave proper weight to expert views. His ambition at Liverpool was that Liverpool University should have the first Faculty of Architecture in Europe. If the science and art of medicine was considered

worthy of a separate autonomous Faculty in the University of Padua in the twelfth century and in every University since, the art and science of architecture might safely follow in the twentieth century.

Mr. W. G. NEWTON [J.] said he should like to add his tribute to Mr. Budden's Paper, which, as Professor Reilly said, showed that Mr. Budden had a cool and intellectual mind in dealing with abstract problems and in separating the theories and making them clear. He thought the Liverpool School was distinctly fortunate in its combination of the coolness of Mr. Budden and the warmth of Professor Reilly. (Hear, hear.) Of course they all warmly acknowledged the debt which architectural education owed to the school in Liverpool: it had so far identified itself with all forward movements, and its standard-bearer had always been in the forefront of every fray. Not only at Liverpool, but at other centres schools were growing up to a high standard, and, as Mr. Budden mentioned in his Paper, gradually the Institute and the Board of Education had been extending the policy of the Council, and it was hoped more and more to be able to grant practically free exemption from the Institute Examinations to students trained at schools formed throughout the country. Of course, in all questions of architectural education there was one great weakness of school teaching, and he did not see how it could be avoided: it was not the weakness of the man, it was simply a matter of individual idiosyncrasies. It was very educational to see in actual bricks and mortar or stone what they had previously put on paper, but in the school students were producing, as it were, children whom they never saw in the flesh and never really knew what they were like. Sending students to offices and letting them go out and see in the solid what they had seen on paper was an education—though in six months at the present rate of building they would not see very much on the site of what they had drawn. Real architectural education was such a big thing. Schools at their best could only just give it a start.

Mr. T. P. BENSLITT [J.] said that the Liverpool School did not simply encourage students to produce fine buildings on paper only, they made tremendous efforts to teach their students to visualise their buildings, to produce working drawings, and to understand the elements of the materials of which they were erected. There was, however, the criticism from the practising architect that students after three years in the school were incapable of making drawings, and this criticism gave food for thought. Three years was only the beginning of a man's education, and they might get a lot of assistance from practising architects in the way of sympathy and encouragement and assistance to the student who came into their offices. (Hear, hear.) Another subject mentioned by Mr. Budden was the architect's curriculum. It was a great point in favour of the Liverpool School that it laid such emphasis on the constructive side of architecture as well as the designing side.

Mr. BUDDEN has reproduced, from notes made at the time, his reply in the following terms to the discussion on his Paper:—

I must first of all thank Professor Reilly and Mr. Newton for the more than kind things they have been good enough to say about me and which I do not appreciate the less because I know they are quite undeserved.

Professor Dickie has made one point to which I should like, with your indulgence, to attempt a brief reply. He has said the advantages which an academic school of architecture enjoys through being part of a University may be outweighed by other disadvantages. He has suggested that the growth and activities of an academic school are liable to be hampered because its needs may not be understood or sympathetically regarded by the bodies that govern a University as a whole: that, in effect, freedom from academic control was in some cases so desirable that he doubted whether a University was always the best place

for a school of architecture. I may unintentionally be misinterpreting Professor Dickie, but that is what I understood him to imply.

Admittedly some academic schools of architecture are less fortunately situated than others. Existing as departments of Universities there are schools which have a small staff and an inadequate equipment and which are subject to unnecessary restrictions. But such schools are simply passing through the difficult period of adolescence. As they approach maturity they will, if they are properly led—acquire the position and powers of the older-established departments of a University. Developed into Faculties they will enjoy a complete domestic autonomy, as the Medical and other Faculties do. The fate of these schools really depends on the constructive ability and energy of those who are charged with the duty of directing and developing them. Because one or two academic schools in the elementary stages of their growth experience certain difficulties, that does not seem to me to be sufficient ground for surrendering the immense educational and professional benefits that would result from the placing of training in architecture on a uniform academic basis.

[This finally brings me to a question which has not been asked, but which I anticipated would be and which, as it may occur to your minds afterwards, I hope you will allow me to answer now in a few words. The question is simply this: Why call the courses which I described in my Paper "*academic*." What is there in them which a non-academic school could not provide?]

I gave to those courses the distinction of the title "*academic*" for three reasons. First of all, because they were originally submitted to the Board of Architectural Education by an academic school: they were the first courses of their kind to be so framed and to be presented to the Board for approval: and though, in so far as they could be imitated by an institution not of University rank, they were very promptly reproduced under non-academic auspices, they remain in inception and character essentially academic.

My second reason for styling the courses academic was that in all that they involve they presuppose a University. A liberal subject such as architecture cannot rightly be divorced from general cultural education. It should be taught in the atmosphere of other liberal subjects and where the general resources, spiritual and material, at the disposal of education are greatest. A University alone adequately fulfils these conditions and a University alone can confer the highest qualifications. As Professor Reilly has said, a degree is something which the world understands and respects: and it has in England a value that no title conferred by any non-academic educational body can be held to possess. This is tacitly acknowledged by such bodies when they borrow academic terminology in an effort to invest their activities with a greater prestige. But though they may style those who may pass through their courses of instruction "*graduates*" and employ similar verbal devices, the fact that they cannot actually award degrees remains a fatal and obvious weakness, which it is futile to attempt to disguise. It is a disability that can only be remedied by affiliation to or absorption in a University.

My ultimate justification of the use of the term "*academic*" in relation to the courses described is that it implies a decentralised system of education in architecture. To establish and develop a decentralised system was clearly the intention of the Institute's Board of Education when it approved those courses as virtually exempting graduates from its final examination for Associateship. The independence of the Universities offers the best kind of guarantee that genuine decentralisation would, through their instrumentality, be obtained; that architectural education in the hands of the Universities really would become, like medical education, a national affair and not the preserve of a London clique.

As far as the Institute is concerned the battle for devolu-

tion has been won. But recently evidence seems to have been accumulating that every effort is being made to magnify the pretensions of a non-academic metropolitan school and thus to focus in London again, at another centre, authority which should be shared equitably by teaching institutions of the first rank throughout the country. It is being stated in all seriousness that "in education, as in commerce, a centralised system is irresistible." If by that were meant merely some scheme of co-ordinating architectural education on the best plane and of securing a high minimum standard of qualification, there would be nothing to be said against it. This latter aim, however, is already in part secured by the Board of Education's provisions relating to the appointment of external examiners to schools whose graduates are eligible for exemption from the examinations of the Institute. Unless I entirely misconstrue the signs, something quite different from that is intended. The creation of an English Beaux-Arts is, I believe, the real object. Though sometimes disavowed when the question is bluntly put, this exotic hope does seem to inspire the promoters of a policy that is inexplicable on any other assumption. A few weeks ago, for example, it was proposed that a "Professor of Theory" should be appointed. According to the description given of his functions, he was apparently to suffice for the entire country, to supply from London the theoretic needs of all the schools of architecture in Great Britain. It is as if one were to suggest that a single metropolitan professor of anatomy or of pathology should meet the requirements of medical students in Glasgow, Dublin, and Manchester. And what would be the status of this "professor"? He could not be of University rank—the non-academic nature of the London body precludes this possibility. What kind of public authority then could his title be expected to carry with it?

Proposals of this kind many of you will no doubt dismiss as not worth discussing, as too entirely alien to our traditions and too far removed from our actual needs to merit consideration. Nevertheless it does appear that by assiduous advertisement and other means an attempt is being made to create an atmosphere favourable to the centralisation of the teaching of architecture in London, to the aggrandisement of a dominant super-technical school of architecture, claiming special professional privileges. The danger is at least sufficiently serious for attention to be drawn to it. I trust that you will recognise that I have done so not in a spirit of sectarian rivalry but in what I conceive to be the national interests of architectural education.

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- More About Unknown London. By Walter G. Bell, F.R.A.S., With sixteen illustrations. 80. Lond. 1921. 6s. 6d. net. (John Lane, The Bodley Head, Ltd.)
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- The Modern Painter and Decorator. A Practical Treatise on House, Church, Theatre, and Public Buildings. Painting and Decorating. By Arthur Seymour Jennings and Guy Cadogan Rothery. Vol. I. With 96 Plates in black and white and 12 in colours. 8m. 40. Lond. 1921. (Casson Publishing Co., Clun House, Surry Street, W.C.1.)
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PROPAGANDA AND PUBLICITY.

By Professor CHARLES H. REILLY, M.A. Cantab.,
O.B.E. [F.].

Read at the R.I.B.A. Conference at Liverpool, 24th June 1921

It is not at all clear to me why I have been asked to read a paper on "Propaganda and Publicity," especially when there are present here such recognised experts in these arts as the leaders of the Architectural Association. Not only do they know how to handle the lay as well as the professional press, but they have recently joined hands with that great backbone of English commerce, the cocoa makers, the soap boilers, and the patent medicine vendors in openly proclaiming the virtue of their wares by public advertisement. We have all received a prospectus in which we are told that their school of architecture is not only the largest but the most important in the country. That seems to me a very good, though possibly an unintentional, example of propaganda in the new sense which the war has given to the word. Indeed, propaganda might now be defined as an organised scheme for proclaiming one's own virtues and inferentially decrying other people's. Do we want propaganda therefore in connection with architecture at all? I venture to suggest we do not. None of us would care to be concerned in any organised scheme for proclaiming that our modern architecture is better than that of other countries or other ages. We are all much too conscious of each other's infirmities to do it wholeheartedly. To be a successful propagandist you must not only have no sense of humour, but the hide of a rhinoceros. The commercial gentlemen who plaster our walls and flood the press with the virtues of their wares really inhabit a different planet from ourselves, and even they often hide their personalities under a pseudonym. I do not know whether there is or ever was a real Mr. Dunlop, with his grey beard and immaculate trousers, or a real Johnny Walker, with his eyeglass. But imagine, Sir, what might happen to you personally if the Institute took to advertising the advantage of employing its members by publishing pictures of its President. You would become standardised, like the famous K.C. who is for ever advising folk to take someone's pills, or the clean-shaven young man who breaks the hearts of young women in the tubes by looking at them over the edge of an Arrow collar. You would never be allowed to grow old; your wife and family would tire of you, your colleagues would be afraid to walk with you in the street. No, we cannot proclaim the virtues of ourselves or our buildings in the mass. Propaganda we must leave to the market-place and those who work there. But that does not mean that we cannot do anything to educate the public as to what is good architecture—and having educated it, let those who are fit to benefit.

At present architecture is much too much of a mystery. It is our own, or rather our predecessors', fault. Books on architecture have in the past fallen into two groups. First there were those of the old

men, mainly Italians, who followed the method of Vitruvius. They wrote elaborate treatises full of rules and proportions. These were much too dull for the layman to read. He merely looked into them, and imagining that the architect read them, which, of course, he didn't, thought the whole matter was some esoteric mystery rather like the popular ideas at the present time of relativity. Then came the Ruskin school. They made architecture easy, or apparently easy, for the public by turning it into a peg on which to hang ethical discourses. Your parson, under his plaster vaulting, could preach with fervour of the lamps of truth and sacrifice. But I am afraid the public were no nearer understanding the essentials of our art, and we did not enlighten them. When new buildings were put up in our towns we did not tell them which were the good ones and which the bad. We do not even do so to-day. Our technical press is afraid to tackle the task, and the lay press is too ignorant. In painting and sculpture the matter is quite different. Every daily and weekly paper throughout the land feels that it is part of its duty to criticise new pictures and sculpture wherever they appear. It is only of architecture that they are shy; and yet, of course, it is architecture which affects the daily lives of their readers to a far greater degree than the other arts. The educated layman would be ashamed to have no views about painting, music and the drama; but he is quite prepared to fall back on his personal likes and dislikes when it comes to architecture. And with no public opinion to hold us in check, we ourselves are apt to run amok. Oxford Street and Regent Street, to take prominent cases, are becoming fine examples of good F.R.I.B.A.'s and A.R.I.B.A.'s all running amok to their hearts' content. Of course, the main remedy lies in the education of the architect, a subject we are only now beginning again to take in hand at all seriously. But that is a long and slow process, and none of us may live to see the results. In the meantime our towns may, and probably will, be spoilt and the best jobs, as usual, go to the wrong people. Is there anything we can do in the meantime to educate the public and at the same time to put some control on ourselves? I think there is. I suggest three things, all of which, I think, would be practically useful. They are: (1) That architects themselves should publish in the lay press the same kind of reasoned criticism of prominent new buildings which they make to each other in private. Let one or more of them in each town become public critics of architecture. Let them explain at large why the character of such and such a building is good or bad, how it composes or does not compose, whether the detail is consistent or inconsistent, whether the materials used are suited to the town or not. Let him, in short, give the sort of criticism that is given in every school of architecture to each student's design. In doing this he will probably tread on endless toes, but he will at once awake interest. I have ventured to do it myself for Liverpool; and I know, I must say, the architects in this

town have taken it all in excellent part. As far as I am aware, no attempts have been made on my life, and, on the other hand, some architects have even got jobs through my articles. One or two buildings which seemed to me unworthy of their sites have already been refronted. The public is extraordinarily ready to be instructed. I have been told of schools and clubs which have made expeditions with my cuttings in their hands, looking at each building in turn. Educated people have said to me that for the first time they realised that ordinary shopfronts and business premises fell within the domain of architecture, which till then they thought only applied to churches and town halls. Such people, I hope, would now be careful in choosing an architect for a shop where before they would have treated it as on a par with choosing a solicitor or an accountant.

Another method of stimulating public interest, which we do not, in my opinion, use sufficiently, is the method of public exhibitions, with the criticism which follows them. The Americans are much better at this than we are. I was very struck on visiting New York a month or two ago with the exhibition of the Architectural League of New York which was being held at the Metropolitan Museum in Central Park—their National Gallery—or rather, I should say, I was very struck with the people leaving it. Unfortunately I arrived on a Saturday afternoon, just as it was closing, but I was met by a crowd of motor-cars in long files such as we should hardly see at a private view of the Academy. I made inquiries about the exhibition, and was told it consisted of photographs, models, furniture, fittings, tapestries and a few drawings. I gathered that it was the photographs and furniture that most appealed to the public. The exhibition had been on for a week when I missed it, but I discovered that all the great New York dailies had treated it as one of the most important exhibitions of the year, and obviously its popularity was keeping up. I suggest that the local architectural societies could in every town hold an annual or six-monthly exhibition of architectural photographs and accessories in the local gallery; and if they took a little trouble with the hanging, and avoided too many plans, elevations and detail drawings, they could make such an exhibition of general public interest. It must be remembered that the immediate success of such papers as *Homes and Gardens* shows that there is already a keen interest in the interiors, at any rate, of their houses taken by the general public, and that this interest, if fostered, would soon spread, first to the exteriors, and then to the larger buildings. But such exhibitions will do very little good if they are not accompanied by serious criticism in the press. The technical press, as I know from personal connection with it, is too tied to its advertisements to be of much service in this respect, and besides, it is read by the wrong people. Informed criticism will not at first be given in the public press unless some architect is willing to give up the time to do it. If such a man can be found, I am quite sure

the press will be only too glad to employ him. Eventually one may hope that a lay architectural paper, in the true sense of the word—not one dealing with how to convert coal scuttles into lampshades, or *vice versa*—will arise, as the *Architectural Record* has arisen in America, and be read by the public at large. Perhaps the *Architectural Review* under its new editors may achieve this position, and if so its service both to the public and to the profession will be inestimable.

My final suggestion is a very old one, but one which, while it flourishes in France and America, has not yet been adopted in this country. It is that the profession itself should in each centre annually crown the building which it considers the best erected in the year. In America this is done by means of a certificate which the local Chapter of the American Institute grants. The recipient of this is prouder of it than of any initials after his name. He generally frames and hangs it in his office. But this is the least important part of the project. The important thing is that the local press take a great interest, too, in the building so crowned. It is photographed, and the photograph appears in all the Sunday editions alongside the photographs of popular actresses and eminent criminals. The building is a marked building, the owner is delighted, the architect happy, and the cost is only the cost of the parchment. But the public are stimulated. They go and look at the building, and articles probably appear explaining its good points and why it has been chosen. In France, I believe, they go further, and remit a proportion of the rates on such a building, considering it to be—and rightly—a benefit to the town. We may in time come to that, but, whether we do or not, it should be easy to take the first step and grant the certificate. If we were really moral people, with the true interest of our cities at heart, we should go further and grant certificates of condemnation to the thoroughly bad buildings; but I am afraid at that point our courage would fail us. So I leave the subject just when it becomes really interesting, hoping others will have been stimulated to take it up, particularly my expert friends of the Architectural Association.

DISCUSSION.

MR. HUBERT WORTHINGTON, M.A. [L.] (Manchester), in opening the discussion, said they had two forms of propaganda to face—legitimate propaganda and illegitimate advertising, and it was difficult to draw a distinction between them. He looked upon Professor Reilly as a great exponent of true propaganda. His articles on the street architecture of Liverpool were as fine a piece of propaganda work as architects had ever had. His proposal as to the "crowning" of buildings was a most excellent one, and endeavour should be made, as he suggested, to capture the local press. The holding of exhibitions was also a sound form of propaganda, and he would add a fourth suggestion—viz., public lectures, one of the best means of beginning the education of the public. Some useful propaganda work had been done in Manchester by the University, which had organised lectures by Professor Lethaby, Mr. Waterhouse, and Mr. W. G. Newton, in conjunction with the Manchester Society of Architects and the Institute of Builders. These lectures were initiated not by the architects, but by the Institute

of Builders of Manchester. The matter had been taken up with the utmost enthusiasm, and the lectures had been a tremendous success. Not the least satisfactory result was to hear building workmen discussing the lectures among themselves—it gave them something else to talk about than the everlasting question of wages. But the articles in the press and the architectural exhibitions were only paving the way. Architects must educate themselves, they must do good work and carry on personal propaganda of the right sort in their attitude towards their clients, towards the builders and towards the workmen. This was the basis of the whole matter. It was the duty of everyone in that room. Builders in the past had accused the architect of adopting a nose-in-the-air attitude, but the War had broken that down. Officers and men at the Front had learnt to know and to understand one another. A Lancashire bricklayer had told him that he intended organising a protest to a local District Council because they had not engaged a qualified architect for the housing scheme. He himself, he said, had served an apprenticeship of five years as a bricklayer, and he wanted to work under an architect who had served his time as well. The whole thing resolved itself into this: there must first be co-operation between architects, and then there must be co-operation between architects and the building trade. Architecture was no longer the product of one man—it was too complicated—and architects had to co-operate with everybody engaged in building and to break down the exclusive attitude which had often been adopted in the past. The Institute in the past had the name of being exclusive; but they would not lose anything if they broke down those barriers, were a little more free and easy with the workmen and builders, got their clients interested, and were worthy exponents in their own work. If architects were to take their full share in modern civilisation, they must break down these barriers, and there was only one way to begin it—by propaganda, but they had to make sure that it was proper propaganda and done in the right spirit.

MR. FRANCIS HOOPER [F.] expressed full agreement with the last speaker. Every architect must feel his dependence on the men who were giving shape to his designs. He suggested they should go a step further, and that when an architect was given a certificate that he had produced the best building in the year in his district, the contractor also should be given a certificate, and recognition in some simpler form should be given to the men employed on the work.

MR. W. G. NEWTON, M.C. [A.], President of the Architectural Association, said he rose with considerable diffidence as he was peculiarly ignorant of the subject under discussion. He had however been attacked from two angles by his friend Professor Reilly—as representing the Architectural Association, and also as representing the editorial chair of the *Architectural Review*. He felt therefore that he must deal with the subject, however inadequately. Of course this was merely a crossing of swords between the two Schools; it had nothing whatever to do with the subject of propaganda. It would be a better thing for architecture if all the schools should be boomed by any reasonable and sound methods which occurred to their governing bodies. Unfortunately the Architectural Association had not the vast endowments of a university and were in rather a difficulty. They hoped, however, with the help of members of the profession and others interested in architecture, to be able gradually to establish themselves on as firm a financial basis as they felt they were educationally. Personally, he was afraid of publicity, having got into great trouble with an Irish department over some incautious remarks let fall after dinner at the Architectural Association. Last year a new monthly was started, the *London Mercury*, which promised its readers "authoritative articles on all the arts—on painting, sculpture, music, the drama, poetry"—but no mention was made of architecture. The omission was pointed out to the Editor and he eventually yielded, and now an article on Architecture

appeared every month contributed by the Secretary of the Society for the Preservation of Ancient Buildings. Certainly, the lay press and the general public were getting more interested in architecture, and if architects only knew what they wanted and told the public, he was sure the latter would be ready to receive it. As Mr. Worthington suggested, an architect should take his friends round to other architects' buildings, and draw attention to their good points. He should take every opportunity of praising other architects' work—provided, of course, it were praiseworthy—and very likely, in the end, some one would praise him. They were greatly indebted to Professor Reilly for bringing this subject forward.

THE PRESIDENT (MR. JOHN W. SIMPSON) said he thought these good-natured crossings of swords would be beneficial to everybody. If they always spoke out plainly and in good humour it would be the better for all of them. Two things he would draw attention to. The first was the suggestion, which came from Professor Reilly of all people in the world, an inhabitant of a celebrated football town, that there should be a public critic. He did not know whether he followed the proceedings of football referees, but he would find the position of a football referee a bed of roses compared with that of a public critic on architecture. However, if there were anybody bold enough to tackle it architects should welcome it. Secondly, he heard friendly criticisms and digs at the work of the Royal Institute, and they were told that the Royal Institute did not take the trouble to find out what was going on in the provinces. Well, they would bear that meekly and try to rectify their faults, but did the Allied Societies in the provinces always take the trouble to find out what was going on in the Institute? One speaker proposed that it would be a good thing if they picked out the best buildings and gave them a certificate. He did not seem to be aware that the Institute had long ago decided to do this, and to give not only a certificate but a bronze medal as well. The Art Committee of the Institute had been in touch with the London County Council and the City Corporation with a view to their co-operation in the scheme for encouraging excellence of design in street architecture, and it only remained for a few final details to be worked out by the Art Committee and the thing was done. Then about lectures. Mr. Worthington pointed out that it was an excellent thing to have some popular lectures. He did not seem to know of the lecture meetings of the Royal Institute: there had been six of them recently, and they had been extraordinarily successful, so successful that the Institute room could not contain the people who came to hear them—people genuinely interested, who would come at five o'clock in the afternoon to listen to discourses on the subject of architecture. So things were moving: the Institute was not half as dead as some people seemed to think. In the name of the Conference he tendered a very hearty vote of thanks to Professor Reilly for his Paper.

The Popularising of Architecture.

A layman's views on the subject above discussed are expressed in a very interesting way by Mr. E. M. Black, of Liverpool, in the following communication published in the *Architects' Journal* of the 10th August:—I am one of the great multitude (I hope) of the semi-educated who are interested in architecture. I have read Mr. Voysey's article on the "Popularising of Architecture," and I gather that Mr. Manning Robertson has been writing on the same subject elsewhere. Their views are of great importance, but they are inside and educated views. They may be interested to hear the view of one of the general and semi-educated public . . .

I think I am on the verge of architectural intelligence, but I cannot be sure. I am in this state of grace, however, that if I ever had money to spend on building I should choose my architect: I should choose the good workman and I should be moved neither by propinquity of blood nor neighbourhood.

Furthermore, having looked at pictures of many fine buildings in your own and other journals (for I haven't travelled greatly) I have now a sense in my bones of what is truly bad. I could never be deceived, were the hand playing never so ravishingly, about the merit of, say, Southport Town Hall. At the same time I live in a provincial city, and the buildings of provincial cities are more rarely described and illustrated than those of the capitals. And so I come to my plea that more might and could be done by the architectural profession to educate us.

A really excellent and illuminating effort was made by Professor Reilly recently in *The Liverpool Daily Post* for my City of Liverpool—incomparably the most serviceable thing that the architectural profession has done for me. Professor Reilly in a series of articles went through the streets of Liverpool and pointed out to the semi-educated what was and what was not good in the architecture of the streets, although his method and treatment were more subtle than that summary would seem to indicate. What Professor Reilly did was to teach us how to look above the level of our noses: taught us in fact how to read the book that is in our hands every day. This is the difficulty to be overcome: that we don't know that above the top of the signboards the architecture usually begins. No doubt my defective education peeps out in such a statement, but let it pass.

I say that it was the most serviceable thing that has been done for me, for my daily life is lived in the streets through which he, a scholar and an artist, was good enough to stroll with me. Of course, I am interested in the domestic architecture of Bath, when I see it, but I am greatly more interested in the good and bad architecture of Liverpool. And especially in the bad. There is too little made of bad architecture, but it is certainly a great joy to the semi-educated to know the really bad. There is a touch of paradox, and you may think of facetiousness, about this point of view, but it is not meant in that way. I am profoundly convinced one can base a great deal of education on a study of the bad. What a field, then, is there in our provincial cities!

Let the R.I.B.A. do for all our provincial cities what Professor Reilly did for Liverpool: let their architecture be described in the press with the same charm and discernment, and if possible, let the process be carried further. If a building is chosen for disapproval let it be illustrated and let it be compared with an illustration of what is fine, in the same kind and of the same scale.

This is the gist and centre-point of the whole business of architectural education for the semi-educated—comparison, comparison, comparison. It is good to see a photograph of a fine and distinguished shop front, but it is ten times more educative to me to see an illustration of a bad shop front in Liverpool set alongside a fine shop front, which obviously achieves the same purpose at not much greater expense. I think it is a job requiring the very greatest learning, judgment and skill, and may very likely be a dream from some better land. But I am certain it would do a great deal more for the cultivation of architectural taste among plain men like myself than photographs of monumental buildings in London.

And the thing is a business proposition. I think I am probably one of many who have glimmerings of architectural intelligence, but very little discrimination. We know where to get our standards in some of the other arts, but somehow not in architecture. And the standards must be exhibited by comparisons at our own doors. And the chances are that the semi-educated have the money, and perhaps their hearts are in the right place; and an opportunity of learning about what is good may help them to spend their money wisely and well.

THE PROCESS OF DECAY IN ANCIENT STAINED GLASS.

By NOEL HEATON, B.Sc., F.C.S.

A STUDY of the decomposition of glass is of great interest and practical importance to the technical chemist from many points of view. The application of such an enquiry to ancient stained glass is a fascinating subject for investigation to one with a *penchant* for archaeological research.

It may seem at first sight of purely academical interest to determine the exact processes which produce that corrosion which is so characteristic of mediaeval glass, and which varied so much in glass of different periods—but this is far from being the case. The interest of such researches is enhanced by the belief that they are of real practical value to the craft. If we can tell the glasspainter how corrosion is related to the kind of glass he uses, he is halfway to knowing how to ensure that the windows he produces will not decay unduly in course of time.

To the antiquary and collector of old glass the study of corrosion is of practical value, because a thorough understanding of it materially assists study of the glass. The fact that successful counterfeiting of the effects of corrosion is a matter of supreme difficulty also renders a knowledge of its peculiarities one of the best safeguards against the forger of such works of art.

The decay of mediaeval glass has been investigated pretty thoroughly in recent years, so much so that I have hesitated to publish anything further on the subject for fear of wearying with an oft-told tale. The other day, however, I received a copy of the appeal issued by the Dean of York on behalf of the Minster glass (*The Windows of York Minster and their Preservation*—1920). I was considerably surprised to read in it the following paragraph: "The glass itself is perishing. There is a curious process going on which can only be called disease. No one knows the cause of it. No one knows the cure."

As we are assured that "the best experts to be found" have been consulted in connection with this important work, one must realise that all the discussion on the subject during the past fourteen years must have missed its mark. A brief review of the facts brought to light by recent investigation may therefore be of interest to members of the Royal Institute.

First of all, I would like to clear the air by removing possible misconception caused by the unfortunate use of the word "disease" in the paragraph quoted. Many years ago, when one of the Minster windows was under repair, the glasspainter was much bothered by a persistent journalist, who wanted to know all about the glass and why it was pitted all over. To get rid of him, the artist said: "Why, you can see for yourself how it is—the glass is suffering from smallpox." Of course, he never intended the remark to be taken seriously—but how widely the sensational remarks of a practical joker carry when the voice of the patient

investigator remains unheard! The following appeared in due course in *The Daily Chronicle* :—

"Smallpox, so we announced last August, had broken out among the antique bronze statues at Athens. Now, it seems, the complaint is not unknown among antique glass. Mr. —, of the firm of Messrs. —, has lately been removing some of the thirteenth and fourteenth century glass from York Cathedral with a view to arresting the disease, so bad is it in parts that nothing short of a surgical operation can avail. Mr. — showed one of our representatives specimens of this glass which he had in his consulting-room."

And shortly after in another paper we find the following: "A year or two back a 'glass disease' of a leprous character broke out amongst the windows of York Cathedral, and much of the beautiful and costly fourteenth-century stained glass had to be removed with a view to arresting the progress of the infection. Expert pathologists ascribed the ailment to a micro-organism, which in the course of years had perforated the glass to such an extent that it yielded to the slightest touch. Its transparency, moreover, had to a great extent disappeared: in short, the glass exhibited no longer the properties of glass; the silica in it having been assimilated by the malignant microbes which had caused the complaint."

And so it has gone on from year to year. It may sound impossible, but I know of one case at least where this association of ideas created by the use of the word "disease" resulted in valuable specimens of mediaeval glass being destroyed for fear the infection might spread to adjacent windows. I do not wish to suggest for a moment that the Dean and Chapter intend the word "disease" to be taken literally—the context clearly shows that this is not the case. But it will be seen from the above extracts how such statements are liable to misconstruction, coming from such an authoritative source, and I suggest that investigation on the part of the experts consulted would have dispelled the idea that the decay is an inexplicable mystery.

"No one knows the cause"—and yet the cause is fairly patent to any one with the requisite technical knowledge who takes the trouble to study the glass. The simple fact of the matter is that the glass used in the execution of the windows referred to was quite unsuitable for the purpose as regards durability. The bad workmanship was on the part of the glass-maker, not on that of the glasspainter. I call it bad workmanship because the glass was not as durable as could be made even in those days—windows of a much earlier period have come down to us in a much better state of preservation. He erred through ignorance which he had no means of correcting; but if we can discover exactly where he went wrong it will materially assist the glasspainter of to-day.

With this object in view many investigators have from time to time studied ancient glass—Winston,* Fowler,† Appert,‡ to mention a few. As a glass-lover

* *Notes on Glass Painting*, 1847. † *The Process of Decay in Glass*, 1879.
‡ *Notes sur les Verres des Vitraux anciens*.

by tradition and inclination. I have myself devoted a good deal of time to careful research. Some years ago I published before the Royal Society of Arts * some investigations which led me to the conclusion—now, I think, generally accepted—that the cause of the comparatively rapid decay of the York glass was to be found in its peculiar composition. Window glass is composed of silica, derived from sand, alkali and lime. To be sound and durable, it must contain at least 70 per cent. of silica. If there is too much alkali the glass attracts moisture, and suffers decomposition through a process known to chemists as hydrolysis. If there is too much lime, it tends to suffer the change known as devitrification during working, whereby it becomes crystalline ("ambitty," the glassmaker calls it), and consequently in a state of strain.



FIG. 1.—Fragment (full size) of glass from York Minster, early Fourteenth Century.

With this brief summary of well-ascertained facts, let us look at the following table of analyses—

	Typical Roman and early mediæval	Actual Specimen from York Minster	Typical modern
Silica	69	53.85	70
Phosphoric acid	nil	4.59	nil
Soda	17	11.72	15
Potash	nil	3.37	nil
Lime	11	20.67	13
Magnesia	..	..	..
Alumina	..	..	..
Iron oxide	3	5.16	2
Manganese oxide	..	..	..
Lead oxide	—	0.59	—

Look at the low content of silica in the York glass, the huge amount of lime and alumina, the impurities

* *Journal of the Royal Society of Arts*, "Mediæval Stained Glass, its Production and Decay," 15th March, 1907, and "The Foundations of Stained Glass Work," 18th March, 1909.

in the way of phosphoric acid, etc. Is it an inexplicable mystery that this glass has decayed? The miracle is rather that it has lasted so long. Fig. 1 (reproduced from the *Journal of the Royal Society of Arts*) shows the actual condition of some of the glass of which the above analysis was made. Notice how the glass is honeycombed with great pits, which almost perforate it. The whole process of their formation can be traced by a careful study of the glass itself. The glass as made was not uniform in composition, as it should be, but irregular and unstable. It was "ambitty," containing minute crystals, centres of decomposition. In course of centuries decomposition proceeds from these minute crystals as a centre, with the result that a strain is set up in the glass. Sooner or later something has to go to relieve this strain, and a crack appears which forms a circle round the disturbed area. The whole mass then drops out, leaving a hole (see Fig. 2). All

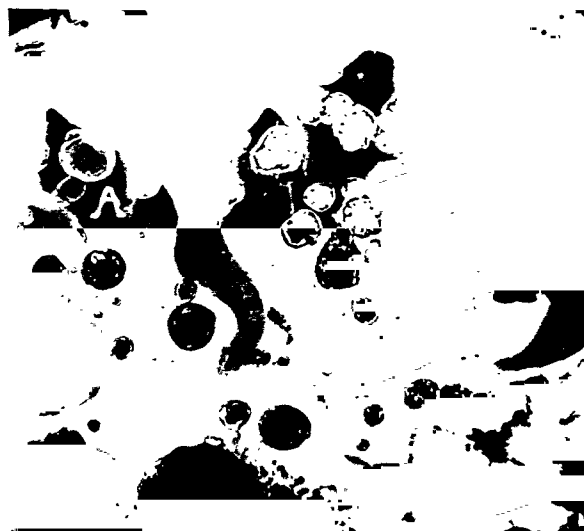


FIG. 2.—Fragment of glass (enlarged) showing circular areas of decomposition. At A the decomposed glass has fallen out, leaving the characteristic pit.

the time this is happening there is taking place simultaneously the action I have referred to as hydrolysis—the surface of the glass attracts moisture, which penetrates into the glass, dissolving out the alkali and leaving the glass soft and powdery. These two processes proceed side by side, and the one increases the effect of the other. Alkaline water lodges in the deep pits, their edges break down, until neighbouring pits coalesce, and finally the whole surface breaks away, leaving, perhaps, a remnant of the original sheet, no thicker, and very little stronger, than a piece of paper. I have found that even in places where the original surface has remained apparently intact the constitution of the glass has changed so much that one can destroy it entirely by boiling in water, leaving an opaque crumbling mass of silica.

The decay is thus inherent in the glass itself: all glass is subject to decay in time, but glass of suitable

composition exposed for centuries under the same conditions merely becomes covered with a thin uniform coating of silica, which has the effect of preserving it largely from further action, as well as enhancing its beauty. Compare, for example, the condition of the glass of Canterbury with that of the York glass. Pitting is present, but only on a very small scale, and the whole surface of the glass is covered with an adherent film or patina which gives it a wonderful charm.

But it has been suggested as an explanation of the comparative rapid decay at York that the glass is subjected to the peculiarly corrosive atmosphere of a large town, whereas most of the earlier glass is exposed to comparatively pure air. Unfortunately earlier glass at York is scarce, and not readily accessible, so that the obvious plan of testing this supposition by comparing specimens on the spot is not available. It will, however, be agreed that no more drastic condition of exposure could be found than the heart of London. Now Westminster Abbey was once glazed throughout with glorious thirteenth-century glass. Little of it remains, and that little has been subjected to every sort of maltreatment—deliberately smashed by iconoclasts, scratched and broken by vandals, turned inside out and upside down by ignorant glaziers in times long past. But fragments of the original windows remain, for instance, in the clerestory of the apse—in an almost perfect state of preservation. Need I say more?

The practical bearing of this enquiry is that glass of sound composition will retain its beauty for century after century whereas unsound glass will perish. Badly made modern glass may decompose in the same way, and the decomposition will proceed very rapidly under abnormal conditions. Some years ago, for instance, a colleague of mine who had gone out to Malay to do some research work sent me some microscope slides he had ordered from home, which in a few months lost their transparency, becoming covered all over with white spots. Examination under the microscope showed that these were composed of spherical clusters of needle-shaped crystals. They were not loose on the surface, but had been formed in the substance of the glass, giving it a ground-glass appearance, which could only be removed by grinding and polishing. I notice similar instances are quoted by Mr. J. A. Knowles, the glasspainter, of York, in an interesting article in the *Architectural Review* for May, 1921.

If, therefore, we are to rely upon our modern windows remaining as the treasured possessions of future generations and monuments to the efficiency of twentieth century craftsmen, it is essential that the glass used for painting upon should be sound in composition, as well as having that beauty of colour and structure which is rightly prized by the artist.

REVIEWS.

BUILDING REPAIRS.

Building Repairs: A Practical Guide to their Execution. For the Use of Architects, Builders, Property Owners, &c. By Ernest G. Blake. 8s. Lond. 1920. [B. T. Batsford, Ltd., 94 High Holborn.]

It is possible, no doubt, to write a text-book wholly restricted to the subject of building repairs. But, having regard to the fact that repair work is, of course, new work imposed upon existing work, there is a great temptation for a writer to stray away from the question of repairs and to treat of new work as such. Mr. Blake has evidently recognised this danger, and tried to keep to the straight and narrow path indicated by the title of his book. He has not, however, succeeded in so doing, and, if he had, we should be so much the poorer. For this little book, while dealing more or less fully with the subject-matter of its title, is full of practical information as to the execution of building work generally. Many writers of text-books on building subjects have been principally compilers. A close study of current text-books will show many instances where writers have more or less blindly followed their predecessors. But in the present case the writer is evidently a master of his subject, and writes in a definite and convincing style that can occur only when accompanied by thorough knowledge.

The book is arranged to treat of the subject of repairs under the various trade headings, such as bricklayer, tiler, carpenter, plasterer, etc. In the first half of the volume the author deals in a satisfactory manner with all the ordinary items of repair work under the earlier trade headings, such as inserting a damp-proof cornice, pointing a brick wall, resetting a range or copper, reinstating a broken drain pipe, and repairing decayed timbers, flooring, etc. In the latter half of the book, when dealing with such matters as plumbing, hot water supply, plastering, etc. the writer warms to his subject, with the result that the question of repairs is allowed to drift more into the background, and the treatment is on general lines, with a corresponding gain in effect. While the book is hardly one for the novice, as a knowledge of all trade terms is taken for granted, it can be studied with advantage by all persons who have been trained in building work. To the architect or architects' assistant who desires to consolidate his knowledge, the book is most strongly to be recommended, for the subject of "building" is such a wide one that few persons are able to master it in all its details. Are we all of us quite sure in our minds as to the correct length and width of a soaker, the correct method of glazing a greenhouse, the best method of re-fixing a slate that has slipped from position? Can all architects explain why plastering laths should never, in any position, be allowed to be run vertically, and why it is folly to paper a distempered wall? These and a hundred other things are dealt with in this little nook.

HORACE CUBITT [A]

SIDELIGHTS ON LONDON HISTORY.

More about Unknown London. By Walter G. Bell, F.R.A.S. With 16 illustrations. 8s. Lond. 1921. 6s. 6d. net. [John Lane, The Bodley Head.]

Mr. Walter Bell's books are always full of human interest and always fascinating in their word pictures of events and times long since gone by. Mr. Bell has indeed the light and sympathetic touch so reminiscent of Charles Lamb. The present volume is full of sidelights on London history, though not so closely akin to the architectural side as was Mr. Bell's *Great Fire of London*, on which his reputation will be deservedly known.

The book comprises seventeen chapters put together at odd times as recreation in the intervals of his more substantial work, and hence there is little to bind these interesting stories together. Each is a scrap left over from a fuller meal, and one cannot but feel that, interesting as the material is, the book would have been much more complete if some form of chronological order had been kept and the gaps between the chapters bridged over by some other anecdote of equal interest. At the end of each chapter the reader is brought up short, just as he is getting interested, and he is thrown bodily back or forward a century or two, as the whim of the author dictates, so that the book, if read through from cover to cover, gives one a somewhat chaotic recollection of the whole.

As magazine articles they would be delightful: but in a book like this the chapters call aloud for rearrangement. Taking any one chapter as an article by itself, though, one can enjoy half an hour anywhere in the past and, armed with Mr. Bell's book, can saunter out for an afternoon's excursion into the Unknown London of which Mr. Bell is so excellent an exponent. His rambles go from the giants Gog and Magog in the City Guildhall to the Execution Ground on Tower Hill, and then by Fleet Street to Red Lion Court, up to St. Martin's-le-Grand, back to Goldsmith's rooms in the Temple, then off to Westminster, where we are introduced to the Jewel Tower and the Chapel of the Pyx, and then back to Dr. Johnson's house in Gough Square, the Carmelite Vault at Whitefriars, and the Apothecaries' Hall, Blackfriars, finishing up with an interesting history of Ely Place and a talk about Dickens. Mr. Bell cannot, I think, intend us to do all these in one short excursion, and it would be better for our meditations if we limited our visit to one chapter at a time, according to our mood.

Each is delightfully written: perhaps the element of tragedy predominates in these stories of Old London and its executions, without the full joyousness of its everyday life, though even in his tombstone stories Mr. Bell can be delightfully humorous, and his light touch enlivens even the most gruesome of the episodes which he narrates.

A capital collection of anecdotes for any one interested in Old London, but, like the medical man's pills, "One only to be taken at a time, after meals or before bedtime."

W. R. D.

SPECIFICATION

Specification, with which is incorporated the Municipal Engineers' Specification. For Architects, Surveyors, Engineers, and for all interested in Building. Edited by Frederick Chatterton, F.R.I.B.A. No. 23, 1921. La. 4s. 10s. 6d. net. [Technical Journals, Ltd., London, S.W.]

The present volume—No. 23—once more exemplifies the thoroughness and care with which the editor, Mr. Frederick Chatterton [F.], by constant revision and the inclusion of fresh matter, keeps this very complete and copiously illustrated work of reference abreast of the times. One may therefore have no hesitation in conceding the editorial claim that the book contains "the very latest technical data procurable—no matter how diverse they may be."

With regard to the standing sections, these not only contain valuable chapters on upwards of thirty branches of the building trade, but include expert information on such subjects as gas engineering, jointless flooring, petrol air gas, steel casements, and the water-proofing of cement. Reinforced concrete construction naturally occupies a prominent place, and is treated in a very comprehensive manner.

The special articles—of which there are no less than six—are all illustrated but one. These form a distinctive feature of the volume, and the subjects with which they deal have obviously been chosen for their helpfulness to the practising architect in his daily work.

The editor has given us a new and important "Index to Trade Names," which provides a ready means of tracing the makers of proprietary commodities and specialities bearing distinctive brand or trade names—otherwise difficult to locate.

Specific particulars concerning a large number of selected building commodities will be found in the section entitled "Proprietary Materials for Rapid Building Construction."

We miss the familiar pictorial headings to the trade sections, but welcome the plain and dignified titles which have taken their place.

Specification deservedly enjoys an empire-wide prestige, and should prove of great value to architects overseas, where access to standard text-books is not always available.

A. HERON RYAN-TENISON [F.].

THE OLD CHURCH, CHELSEA.

Survey of London. Vol. VII. Chelsea (Part III.), by Walter H. Godfrey, F.S.A. Issued by the Joint Publishing Committee representing the London County Council and the London Survey Committee: on sale at the Council's publishers, P. S. King and Son, Ltd., 2 and 4, Great Smith Street, Westminster, price 21/- net.

The seventh volume of the *Survey of London*, being the third volume devoted to the Parish of Chelsea, is a remarkably fine monograph on the old church, a building which, to quote the author, Mr. W. H. Godfrey, F.S.A., "will never fail to arouse the deep interest, even the veneration, of the student of London." The work should be in the hands of all who are in-

terested in the history of our past—particularly of the 17th century : all Mayors, Aldermen, Councillors and members of Education Committees should in some way be induced to examine it, and every Public Library should possess a copy.

The book is attractive in appearance and contains a wealth of excellent illustrations, including reproductions of a number of measured drawings made by eight fortunate A.A. students. Descriptions are given of the building, the fittings, and the monuments : the inscriptions on the latter but emphasize the great human interest of the whole.

“ WHEN BAD MEN DY & TYRNE TO THEIR LAST SLEEPE
WHAT STIR THE POETS AND INGRAVERS KEEPE
BY A FAIND SKILL, TO PILE THEM VP A NAME,
WITH TERMES OF GOOD & IVST, GVT LASTING FAME
ALAS POORE MEN, SVCH HAVE MOST NEEDE OF STONE
AND EPITAPHS, THE GOOD (INDEED) LACK NONE
THEIRE OWN TRVE WORTH'S ENOUGH TO GIVE A GLORY
VNTO TH' VNCHANKERD RECORDS OF THEIRE STORY :
SVCH WAS THE MAN LYES HEERE YET DOTH PERTAKE
OF VERSE AND STONE VYT TIS FOR FASHION SAKE ”

With such a lesson before him the reviewer must indeed be careful. He may, however, surely be permitted to state that Mr. Godfrey and all those who have worked with him are to be heartily congratulated on the result of their labours. They have produced exactly the sort of book which every self-respecting parish should endeavour to produce. Even in the event of the endeavour falling short of print, much good would result from the getting together of the drawings, photographs, rubbings and descriptions.

W. S. PURCHON [A.]

CORRESPONDENCE.

Registration : Now or Later ?

Hartley, Cranbrook, 6 August 1921.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR.—Recent correspondence in the R.I.B.A. JOURNAL seems to suggest that a sharp difference of opinion exists as to whether effort should first be concentrated upon unification or registration, few appearing now to doubt that both are desirable objects whose attainment would do much good. In fact, registration includes unification, and, under a well-considered Act, in a much more human form than any which would involve the absorption of one body by another, with the wiping away of friendly rivalry and all its many advantages.

Unification, as now understood, was only sought originally as a means to the end of registration : the profession being told, in pre-war days, that Parliament would not grant registration until we were united in demanding it. This was comprehensible in the days of party government, though it was no more than a way of putting off the consideration of something which appeared to the M.P.'s of that time to be of little moment— and possibly a nuisance.

Things are now very different. We have a Coalition Government, which will back any measure which can

be demonstrated to be to the public advantage, provided that it does not put the country to expense. Thus the Dentists' Bill was recently passed with Government backing, under the ægis of the Ministry of Health. This same Ministry has of late had much to do with architects. It is fully alive, in the matter of housing at least, to the necessity of the employment of properly qualified men, and it has been hampered by the fact that architecture is not a profession whose members are all so qualified. Now is the right time to seek its aid, on broad public grounds, and not merely because we architects—a comparatively small body—desire registration ourselves. Given registration, it could be pointed out, a large part of our complicated building regulations could be abolished, and a whole army of officials, whose functions are now in abeyance, need not be replaced ; for responsibility could be put up on the right shoulders, which are ours, we being a body of highly trained experts, without whose employment no building would be permitted for which plans have now to be submitted to local and other authorities. Consequently, in agreement with Mr. Cross and his friends, I think we should concentrate on registration, and at once and energetically.

The moment is most opportune to success, and the opportunity should not be allowed to pass, as were the lesser opportunities in 1888, 1889 and 1894, when the earlier Registration Bills were put before Parliament : the first to be only rejected on second reading because the mistake was made of including civil engineers and surveyors within its scope, while the others failed even to reach that stage, largely on account of the opposition of the Council of the Institute of those days—in other words, for lack of unity of the profession at that time in its desire for registration. A generation has passed since then : this real unity of desire has been achieved, and the Institute is now leading the movement which it then opposed. As compared with such unity of aim, mere unity of organisation is of small account : its only antecedent object would be that of eliminating opposition, which is not now to be feared, while its achievement, if still considered desirable, would be rendered easy, indeed, by the passing of a well-devised measure.

The Bill of 1889 and 1894 hardly needs altering in any way to meet all requirements. It was based upon the Medical Act, and drawn up with extreme care, as I can vouch, for I was a member of the committee which considered Mr. Walker's excellent draft word by word, over and over again. It would suit present circumstances as well as those of thirty years ago, and perhaps better, for it was in advance of its time, giving representation upon the governing body to all the smaller bodies, now "allied," existing within the control of the British Parliament, and even providing for reciprocity of legal qualifications for architectural practice between this country, its Dominions, and foreign countries also.

My plea is, therefore, not merely for the immediate consideration of registration— and possibly endless

bickerings over the form that the Bill should take and many wanderings into side issues—but for the resuscitation of the existing Bill and its detailed consideration by quite a small committee with the object of putting it, as an agreed measure, before the Ministry of Health for presentation to Parliament next session. If, knowing the Bill intimately, I could be of any assistance to such a committee, I am ready to help to the utmost of the power of an elderly man who is so circumstanced that he now rarely visits London.

G. A. T. MIDDLETON [A.].

Unification of Architects.

SIR.—Amongst the members of the Royal Institute of British Architects (R.I.B.A.) there is again a growing desire to obtain statutory powers for the unification of architects. This object, it is hoped by the supporters of the movement may be obtained by inducing unattached architects to join the R.I.B.A., so that the Institute may be in a position to represent the whole profession when a Bill is to be laid before Parliament. In the meantime it is proposed that the Institute should amend its by-laws and apply to the Privy Council to have its Charter revised so that the doors of the R.I.B.A. may be thrown wide open for all unattached architects to enter.

However desirable unification may be, it is regarded by others that the proposed method of opening the doors is not the right course to secure this end, for in the event of failure to obtain a Bill the status of the Institute would be lowered without any compensating advantage.

A committee of Fellows of the Institute has been formed to consider this important subject. Mr. A. W. S. Cross, F.P.R.I.B.A., has been elected chairman, Mr. H. D. Searles-Wood, F.P.R.I.B.A., vice-chairman, and the undersigned as hon. secretaries. This committee has come to the unanimous decision, "That until a Registration Act has been obtained no real unification of the profession is possible; therefore they are of opinion that no change should be made in our constitution with regard to unification until a Registration Bill is passed."

We should be glad to hear from Fellows, Associates or Licentiates upon this matter, as well as from unattached architects who may chance to see this letter. —Yours obediently,

SYDNEY PERKS

Guildhall, E.C.

GEORGE HUBBARD,

112, Fenchurch Street, E.C.3.

The Government's Future Housing Policy.

Holt, Norfolk, 15 August 1921.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Mr. Ransome's letter in the July JOURNAL very rightly points out that architects have rendered the country but poor service in subscribing to the "Housing Scheme." The impression left on the public mind is not likely to be improved by the undue

prominence given to charges for the abandoned work. Architects must have realised and taken the risks with their eyes open, otherwise they must plead guilty to lack of foresight and judgment.

Surely the time has come for all concerned, in any capacity, with the building industry, to drop pettiloging side issues and combine in demanding the removal of the obstacles which make housebuilding impossible for either the State, local authorities, or private enterprise. The failure of "the National Housing Scheme," with the colossal waste of wealth and energy, is sufficient proof that no scheme, however clever and convincing on paper, can hope to be successful under the present impossible conditions.

Put building on a sound basis, and the trade will right itself without any further wasteful and uneconomic remedies.

The Minister of Labour gives 132,000 as the number of unemployed in the building industry on July 15th last. The Minister of Health states that the curtailed housing scheme will employ all available labour for twelve months. Even with the present restricted output, there are at least 30 per cent. fewer employed in building than in the year 1905. The artisan is genuinely afraid of unemployment, and the architect's prospects are even worse. All this at a time when it is admitted that there is sufficient work waiting to keep the whole building community employed for many years!

Ever since the year 1836, when the burden of the rates was put upon building and improvements, the present crisis has been merely a matter of time. The continuous increase of local taxation, including charges for education, poor law administration and countless other items, which should logically be paid by the Exchequer, had practically stopped investment building before the 'eighties.

The supply of smaller houses was, however, kept up by the development of land as building sites, the enhanced value of the land making up for lack of return on the actual building. This method, though by no means ideal, fulfilled its purpose until the land clauses of the Finance Act of 1910-11 brought its operation to an untimely end.

The clauses in question appear to have been an attempt to apply—or rather, misapply—the principles of taxation of land values. Any such taxation must be coincident with the removal of existing taxation on improvements, and the result, as might have been expected, was deplorable.

In the words of the "Tudor Walters Report": "Long before the war house building was no longer profitable." It is now not only unprofitable, but ruinous.

The Rent Restriction Act is even a worse example of building legislation. While destroying all security of house ownership (and with it house building), it entirely fails to protect the tenant from the indefinite raising of the rates.

Restricted, uneconomic rents mean uneconomic

assessments, and local authorities have been compelled to raise rates, instead of assessments, to meet the increased cost of administration. No doubt a comparatively small section of the community cannot afford economic rents, but this does not justify wholesale restriction. The Act fails to help the poor, and makes local finance, to say the least of it, difficult.

Admitting that the present system of rating is obsolete, so long as it continues those who can afford an economic rent and rates must pay, to enable local authorities to meet their obligations at existing prices.

The income of local authorities depends to a considerable extent on a normal supply of new buildings. The falling off of the latter is cutting off this supply of increased rateable value and forces up the rates on existing property.

Apart from its effect on housing the present method of local taxation is indefensible. It is neither fair, progressive, nor financially sound. No account is taken of ability to pay; and this, as proved by the financial straits of some of the London boroughs and local authorities all over the country is fast leading to the bankruptcy of local administration. The slum dweller, who may be out of work half the year, is taxed at the same rate as the millionaire. The owner who improves his property, whether for the benefit of his tenants, his workmen, or himself, is indiscriminately fined. Slums, dilapidations and cramped workshops, under these circumstances, are inevitable. It is futile to babble about "improved conditions" while such a system exists.

Perhaps a more telling point from the official point of view is the fact that a considerable number of the community, well able to subscribe, avoid payment altogether.

An immediate and drastic reform of our whole system of local taxation is vital to housing and the interests of the community.—Yours faithfully,

E. G. HOLTON [F.]

The R.I.B.A. Balance Sheet.

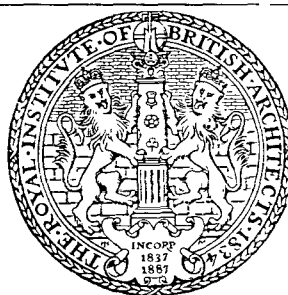
11, New Court, Lincoln's Inn, 16 Aug. 1921
To the Editor, JOURNAL R.I.B.A.

DEAR SIR,—I have read Mr. Sydney Perks's communication concerning the above and I find a continued reluctance to give members precise information on the important matter of the Institute's finances. I, therefore, again press for a reply to the question in the penultimate paragraph of my letter of the 17th June (page 490 of the JOURNAL). Yours truly,

PERCIVAL M. FRASER [F.].

The London Building Acts, 1894 to 1921.

Messrs. Edward Stanford, Ltd., will publish shortly a revised and enlarged edition of Mr. Bernard Dicksee's book on the London Building Acts. The book will be published in two forms: as a complete book comprising all the Acts from 1894 to 1921, with the by-Laws and regulations; and also as a Supplement to the 1908 edition, comprising the Acts from 1909 to 1921, with Regulations. Both forms will include a complete digest of Law Cases to date.



9 CONDUIT STREET, REGENT STREET, W., 27th Aug. 1921.

CHRONICLE.

Cost of Building Working-Class Dwellings: Government Committee's Report and Recommendations.

The Report has been published [Cmd. 1447]* of the Committee which was appointed in February last by the then Minister of Health, Dr. Addison, "to inquire and report as to the reasons for the present high cost of building working-class dwellings and to make recommendations as to any practicable measures for reducing the cost." The Committee consisted of Mr. J. Stanley Holmes, M.P., Sir Thomas Robinson, M.P., Colonel J. Ward, C.B., C.M.G., M.P., Sir James Carmichael, K.B.E., Mr. Thomas Barron, Mr. A. G. Cross, F.S.I., Mr. F. J. Gayer, F.I.O.B., Mr. James S. Gibson [F.], Mr. Webster Jenkinson, F.C.A., Mr. Wm. H. Nicholls, F.I.O.B., Mr. E. H. Selby, F.S.I., Mr. J. Walker Smith, M.I.C.E., F.S.I., and Mr. S. Stranks.

The points covered by the inquiry include the policy of Government financial aid to Local Authorities; the acquisition of land and lay-out of sites; house plans, specifications and bills of quantities; analysis of building costs and prices; labour (numbers of operatives, wages and allowances, relative rates for skilled and unskilled workmen, output, payment by results, direction of labour); contracts (lump sum, cost plus fixed profit, cost contracts with fixed maximum prices, contracts under section 12 (3) of the Housing and Town Planning Act of 1919, direct labour, Building Guilds, Office of Works); costing. Witnesses were heard representing the Ministry of Health, local authorities, architectural, surveying and other professions concerned, builders, foremen, clerks of works, trades union officials, and representatives of all branches of industry which affect the question of cost of building.

The Committee's recommendations are summarised as follows:—

I. (a) That a definite limit should be fixed immediately to the number of houses to be erected by local authorities upon the present policy of the State being responsible for the whole annual deficit involved less the produce of a 1d. rate.

(b) That, if and so far as State aid may be necessary to local authorities for the future provision of essential houses, the financial arrangements should be amended so that the State contribution is a percentage only of the total deficit—such percentage varying according to the circumstances of each case—in order that community of interest in economy may be established.

II. (a) That Local Authorities should be required to adopt plans and groupings of houses requiring reasonable street frontage only, and should not be permitted—as in many cases they appear to desire—to develop entirely with semi-detached houses occupying excessive road front-

* The Report is published by H.M. Stationery Office price 1s. net.

ages. Groups of four or six houses should in some cases be encouraged on suitable sites.

(b) That suitable sites for shops and other purposes than housing should be reserved, so that the enhanced value of such sites may be secured for the benefit of the scheme.

(c) That large schemes of lay-out already approved should be reviewed with a view to making such modifications to effect economy as the more mature consideration and greater experience of Local Authorities in work of this nature may enable them to do, always provided that such modification shall not reduce the standard of lay-out.

III.—(a) That, whilst there does not appear to be any extravagance in the higher standard laid down by the Ministry of Health, the use of the more simple types of houses only be permitted in any new work undertaken; and that means be taken to secure the adoption of any new simple types that may be evolved in substitution for the less economical types in existing contracts.

(b) That Local Authorities be encouraged to avail themselves to the utmost of the latitude given to adapt the standard specification to their local circumstances; and that the standard specification of the Ministry of Health be revised from time to time in order to secure the utmost use of the most economical materials.

(c) That the requirements for quantities should not be rigidly applied, except in the cases of the larger schemes. Where quantities are advisable some amended form whereby materials and labour items are separated would be of great value for purpose of simplicity and for more readily ascertaining where the excess over normal costs is involved.

(d) That there be encouraged the method of obtaining lump sum prices for the erection of houses complete in accordance with plans—probably adjusted plans of houses already in existence which the builder has previously erected—and simple specifications, and finished in a manner equal to an existing house which may be taken as an example.

(e) That local builders be encouraged to suggest modifications and amendments of construction which will secure economy; and the value of such modifications and amendments should be assessed and agreed to before contracts are entered into.

(f) That the standardisation of windows, doors, sanitary goods and internal fittings be more rigidly enforced than at present.

IV.—(a) That the question of builders' profits may most effectively and practicably be dealt with by the restoration of normal competitive conditions, and that all possible steps should be taken to secure this object, *e.g.*, so recommendations under Part VII. of the Report.

(b) That Local Authorities should refrain from letting contracts for houses in any area where the available building resources are already fully occupied and where consequently costs of building may tend unduly to increase.

(c) That subject to the interests of public health and after the urgent national necessity for providing workmen's houses has been met, steps should be taken in periods of depression in the building industry to use the available labour and materials for the further provision of houses which may then appear desirable.

(d) That all possible steps be taken to re-create the house builder to provide houses of the improved type which the public may demand by those economical methods which previously enabled him to supply the demand under competitive conditions.

V.—(1) (a) That as a fundamental step to the cheapening of cost of production some scheme for the augmentation of certain skilled trades be put into operation.

(b) That the scheme for augmentation should be such as the industry may devise and find most effective.

(c) That, so far as action by central and local authorities can assist, and in order to maintain the industry in a healthy condition both for the purpose of securing continuity of employment and for reducing costs of building, housing contracts should not be let in excess of the resources

of building production at any particular time and that the proposed programme for the building of essential houses for workmen should not be unduly restricted.

(2) That an *ad hoc* committee—suitably constituted so as to represent the interest of the public as well as the respective branches of the Building Industry—be appointed, probably by the Ministry of Labour, to make an exhaustive enquiry into the questions affecting output in the building trade and to report upon the means whereby increased production by way of improved output can be obtained.

VI.—(a) That the clause in the housing contracts providing for a sliding scale for materials be eliminated as tending to maintain prices at a high level and to preclude the exercise of the skill and energy of the builder in purchasing cheaply. This should apply to all future contracts and the clause might with advantage upon suitable terms be eliminated even from some of the existing contracts.

(b) That the provision of satisfactory houses be encouraged by any means—*e.g.*, by the recreation of the house builder as recommended in Part IV.—which will restore the pre-war energy and initiative of the private builder and leave him his accustomed latitude in supplying and fixing such materials as he may be able to obtain most easily and economically.

VII.—(a) That normal conditions of contract should be restored eliminating at once provisions for fluctuations of cost of materials and as soon as labour conditions appear reasonably normal for fluctuations of rates of wages during the currency of the contract.

(b) That the number of cost and profit contracts—even with such incentive to economy as they may provide—be restricted to a minimum. That no new contracts of this nature be approved except in very exceptional circumstances and that the advisability of putting into operation the break clause provided in such contracts should be considered in each case.

(c) That encouragement be given to the provisions of houses for sale to local authorities as provided for under S. 12 (3) of the Housing, Town Planning, etc., Act, 1919.

(d) That local authorities desiring to do so should be allowed to provide houses by direct labour in small numbers in the first instance, to be subsequently increased if and when their operations prove economical. That local incentive to economy be provided by the fixing of minimum prices which shall rank for financial assistance.

(e) That conditions of contract with Guilds should be as nearly as possible similar to conditions of other contracts. That such contracts should provide for the Guild completing the work undertaken at a fixed sum. That Guilds be encouraged to contract for the labour only as well as for the whole work.

(f) That the direct building by the Government should be restricted to a minimum. Any arrangement which provides for the actual cost of works, without financial incentive to economy, ranking for financial assistance upon the present lines is only justifiable when such operations are absolutely essential and cannot possibly be undertaken otherwise.

VIII.—(a) That endeavour should be made to obtain cost statistics on all important housing schemes and that the cost results be tabulated for reference purposes.

(b) That the existing costing system be revised with a view to simplification so as to afford the required practical information with the minimum of clerical labour.

(c) That steps be taken to ensure that actual use is made of the information so obtained and that the cost statistics of the Ministry of Health be published so as to be available for local authorities, builders and other interested parties.

Sir Thomas Robinson, Mr. T. Barron, and Mr. S. Stranks sign the report subject to reservations, the two last-named stating that they differ profoundly from the general tone and from many of the findings of the Report.

In the matter of Fees payable to Architects and Surveyors, the Committee state that "so far as the employment of Architects and Quantity Surveyors may be neces-

sary, we consider that the fees—representing very substantial reductions from those usually paid for such professional services—are reasonable. We are, however, of opinion that whilst the Architect and Surveyor may have been necessary in the work of setting a higher standard and in securing the services of a different class of builder, some economies should be secured in the future in the direction of professional fees. One of the main reasons for the speculative builder being able to produce cheaply was the almost entire absence of "on-costs." He did not employ an architect except for limited purposes, and he certainly did not need a quantity surveyor. The saving thereby effected was considerably over and above that of the actual fees. We think that the payment of professional fees in connection with cottage building should in the future be considerably restricted."

Relief from Antiquated Building By-Laws.

The Ministry of Health have issued the following Memorandum :—

One of the difficulties which beset builders of to-day proposing to build houses is the existence of by-laws which were framed at a time when the inherent difficulties of building were far less acute—by-laws which do not take into account the progress which has been made in the development of new methods of construction. Complaints have been made that some of the requirements of these by-laws are antiquated and inappropriate to modern conditions.

This was foreseen at the time of the passing of the Housing Act of 1919, and provision was made to enable local authorities, in the carrying out of housing schemes, to depart from their by-laws and to permit the same latitude to other developers. Further, the Ministry of Health were empowered to make regulations overriding local by-laws, and these were framed on a broad and generous basis, limiting the restrictions to the minimum compatible with due regard to life and health.

Moreover, a right of appeal is given to the builders, in the event of the local authority proving unwilling, fully to avail themselves of the wider powers. It is significant, however, that there have only been fifty-five such appeals, which clearly proves that most municipalities are willing enough to grant the much-desired relief to builders in their districts.

Subsidy to Private Builders.

The Ministry of Health have issued the following instruction to local authorities on their revised housing policy :—

The Government have decided to limit the grant of subsidies to private builders, under the Housing (Additional Powers) Acts, 1919 and 1921, to houses actually commenced before 1st July under a certificate given by a local authority, or on the promise of such a certificate, and completed not later than 23rd June 1922.

In order to meet cases of hardship, however, local authorities may issue certificates where commitments have been entered into on or before 14th July 1921, the date of the Minister's statement in Parliament on housing policy. In such cases subsidy will be paid for houses in respect of which the local authority certify that actual construction was begun on or before 25th August 1921, and which are completed within the prescribed time and otherwise comply with the conditions of the subsidy scheme.

It will be for the local authority to satisfy themselves that a definite commitment existed before 15th July. Generally any expenditure incurred in anticipation of subsidy, such as the purchase of land, or any contractual obligation involving financial liability, will be regarded as a commitment.

In view of the limitation of time, local authorities will

realise that it is essential to ensure that all cases submitted to them are dealt with immediately.

In any case of doubt the question should be referred promptly to the Ministry with a full statement of facts, addressed to the Secretary, Ministry of Health, Whitehall.

Where a certificate is issued under this discretionary power, a typed slip must be attached in the following terms, and signed by the officer authorised to issue the certificate :

" This certificate is issued in pursuance of the discretion conferred upon the local authority to grant a certificate in cases where commitments had been entered into before 15th July 1921.

" The certificate is subject to the conditions—

" (1) That no grant will be payable in respect of any house to which it applies unless construction is begun on or before 25th August 1921

" (2) That houses to qualify for grant must be completed fit for occupation not later than 23rd June 1922 "

A similar slip should be attached to the copies of the certificates sent to the Housing Commissioner and retained by the Council.

Paragraph (b) of the " conditions " on the printed certificate should be deleted.

A scheme has been made by the Minister and approved by His Majesty's Treasury rendering houses commenced before 1st July 1921 eligible for grant and providing for the exercise of the discretionary power described above. The conditions as to planning and construction already prescribed remain as before.

The R.I.B.A. Scale of Charges : Judge's Dictum.

A dictum respecting architects' charges by a Judge of the High Court deserves recording in these pages. Mr. Justice Greer, delivering judgment in the case of *Smith v. Wood and Rozelaar* in the King's Bench Division on the 15th April last, expressed himself as follows :— " I am inclined to think that if a man goes to a member of the Royal Institute of British Architects and says ' Do this work,' unless he arranges something to the contrary, he is agreeing to pay the charges which are made by people who have those qualifications."

Approved Scheme for Apprentices in the Building Industry.

The Education Committee of the Industrial Council for the Building Industry (Building Trades Parliament) have had under consideration the question of Boy Labour in the Industry and have prepared a comprehensive Report in which the situation was analysed from the points of view of (1) Preparation for Industry, (2) The Threshold of Industry, (3) Training in Industry, (4) Post-Apprenticeship Period. The Report having been approved by the Industrial Council, the Education Committee were requested to prepare a Scheme for Apprentices based on the conditions arrived at in their Report. The Scheme was completed and has been endorsed by the Industrial Council and is now published as the Approved Scheme for Apprenticeships in the Industry, with a view to its being put into operation throughout the country.

The Scheme provides for the establishment in each centre of the Building Industry of a Committee, to be called the " Local Building Trades Apprenticeship Committee," composed of equal numbers of representatives of the Associa-

tions of Employers and of the Associations of Workpeople in the Industry in the district. The Committee may add representatives from the Local Education Authorities, the Local Advisory Committee for Juvenile Employment or the Choice of Employment Committee.

The functions of the Committee are to arrange for addresses and for the distribution of appropriate literature to the boys in the schools in order to stimulate the interest for craftsmanship; to interview (with their parents) the boys who desire to enter the Industry. The Committee are to have at their disposal information as to the boy's scholastic attainments and as to the inclination he has shown towards manipulative craft, also as to his health record and physical development, and his temperamental qualities. The Committee are to recommend suitable boys to employers; to prepare lists of employers who have facilities for training in a given trade; to ensure by means of visits, reports and interviews that the youth is receiving the right training; to consult with the Local Education Authorities in regard to the equipment, selection of instructors, curriculum, etc., in the Technical Institutions, with particular reference to the courses to be provided in the Continuation Schools; to provide, under exceptional circumstances, for the transfer of an apprentice to another employer for the purpose of special training; to encourage advanced training where capacity is shown; to promote the physical, social, and moral well-being of the youths by working in conjunction with Juvenile Organisation Committees, Boys' Clubs, etc.; to consider and provide for the position of youths in the Industry who cannot become craftsmen but could be employed in another capacity.

Boys desiring to enter a trade must register with the Local Advisory Committee for Juvenile Employment, who will arrange for them and their parents to be interviewed by the Local Building Trades Apprenticeship Committee. Boys who apply direct to the Apprenticeship Committee or to an Employer must be reported for registration as above. Employers desiring boys must notify their requirements to the Committee for Juvenile Employment, who will arrange for such vacancies to be considered by the Apprenticeship Committee. The Apprenticeship Committee will decide whether a boy is suitable for a trade within the Industry, and whether an employer notifying a vacancy is a suitable person to undertake the boy's training.

Boys may be admitted into the trades not earlier than fourteen years of age and not later than seventeen. The first three months of service is probationary, and if deemed satisfactory by both the employer and Committee he will be indentured for not less than four years, to terminate at twenty-one years of age. The Indenture is between the employer, the apprentice, his parent or guardian, and the Chairman for the time being of the Local Apprenticeship Committee. A full-time course at a Day Technical School counts as part of the apprenticeship. Boys undergoing courses of Institutional Training are eligible for the Local Education Authority's Scholarship awards, bursaries or maintenance grants. Boys undergoing a full-time course of Institutional Training may be indentured to the Local Apprenticeship Committee during such period and at the end of the course the Committee arranges for the transfer of the Indenture to a suitable employer.

The training is a combination of instruction in the workshop and/or on jobs and instruction in the Continuation School. Employers have to see that the boy is engaged on progressive work necessary to his complete training. All apprentices up to the age of sixteen must attend a Day Technical School for one whole day or two half-days per week without deduction of wages, and must attend evening classes for not less than two evenings a week during the School session. From sixteen to eighteen years of age apprentices must attend evening classes for at least two evenings a week, and attendance should be continued during the remainder of the apprenticeship.

Full consideration is to be given to the position of youths who enter as unskilled workers at a late period, say,

eighteen to twenty years, and provision must be made to enable them to receive requisite training. Premature movement of unskilled youths from occupation to occupation is discouraged, every effort is to be made to ensure that they remain in the Industry and are adequately trained.

An Addendum to the Scheme suggests that the minimum scale of wages for apprentices should range from 17 per cent. of the journeyman's rate for boys of 14-15 years to 65 per cent. at the age of 20-21. The Committee are of opinion that the Local Building Trades Apprenticeship Committee should fix apprentices' wages.

A Specimen Indenture is appended to the Scheme.

Palestine Exploration.

Reports from Palestine show that much valuable work is being done under the Antiquities Ordinance. At Ascalon the great cloisters with which Herod the Great adorned his birthplace have been identified and excavated, and the exploration of Tiberias and of the area in the vicinity of the synagogue of Capernaumi has had equally interesting results. At the latter site an hexagonal court, with mosaic pavement and ambulatory, has been uncovered, and a discovery of sculpture and pottery has been made at Casarea. Steps are now being taken to preserve and protect the mediæval tower at Ramleh, the ancient church of Jifna at Ramallah, the castle of the Templars at Athlit, and other monuments, in addition to the upkeep of the citadel and walls of Jerusalem, which are entrusted to the Pro-Jerusalem Society. The Mosaic pavement, with early Hebrew inscriptions and other decorative designs, found last year at Am-duk, near Jericho, has now been completely excavated and removed for conservation in Jerusalem; while a fine sculptured sarcophagus, recovered in fragments from Turmus Aya, has been re-assembled and exhibited in the citadel. Good progress is being made meanwhile with the organisation of a central museum of antiquities in Jerusalem. Already 6,000 objects have been catalogued, and the collection will shortly be open to the public. It is also proposed to organise collections of sculpture and architecture and other antiquities of peculiarly local interest at Tiberias, Acre, Athlit, and Ascalon.

Excavations at Glastonbury Abbey.

The excavations at Glastonbury Abbey have been resumed since the beginning of July by the Somersetshire Archaeological Society. The work at the Loretto Chapel is nearly completed, and more of the pavement of the northern transept has been found. An excavation to the north of the existing Lady Chapel has been begun, and the base of the pillar, which, according to Spelman in the first volume of his *Capella*, marks the position of the Church of Joseph of Arimathea, has been discovered. It is proposed to continue the work here in the hope of finding some foundations of this church; but unless more finds are forthcoming it will be impossible to continue much longer. The work is under the joint direction of Messrs. F. Bligh Bond [F.] and Sebastian Evans.

Eastbourne College War Memorial.

Following the precedent established by many of the public schools, the Eastbourne College War Memorial Committee have decided that an old boy should be entrusted with the design and carrying out of the extensive War Memorial buildings which are contemplated. In accordance with this decision, Mr. Geoffrey C. Wilson [A.], a partner in the firm of Messrs. Bouchier, Tatchell & Galsworthy, has been appointed architect.

British Museum : Departmental Changes.

In consequence of the retirement of Sir Hercules Read, the department of the British Museum hitherto known as the Department of British and Mediæval Antiquities and Ethnography has been divided, and the following appointments have been made by the principal trustees :—

Mr. O. M. Dalton to be Keeper of the Department of British and Mediæval Antiquities.

Mr. R. L. Hobson to be Keeper of the Department of Ceramics and Ethnography.

Mr. T. A. Joyce, O.B.E., to be Deputy-Keeper in the Department of Ceramics and Ethnography.

Mr. Reginald Smith, hitherto Deputy-Keeper in the undivided Department, becomes Deputy-Keeper in the Department of British and Mediæval Antiquities.

The prehistoric collections fall into the Department of British and Mediæval Antiquities, the Oriental collections into that of Ceramics and Ethnography.

ALLIED SOCIETIES.**The President and Allied Societies.**

The President, Mr. Paul Waterhouse, is arranging to pay a series of visits to the Allied Societies during the coming session. On the 20th September he will be present at an "At Home" given by Sir William Portal, Bart., President of the Hampshire and Isle of Wight Association of Architects, and the members of the Association at Winchester. The R.I.B.A. Prize drawings will be on view, and the President will deliver a brief address on matters relating to the future of the Profession.

A visit to the Bristol Society of Architects has also been arranged, and particulars will be published later.

Royal Institute of Architects of Ireland.

The Council of the Royal Institute of Architects of Ireland have forwarded to the Council of the Dublin Industrial Development Association suggestions with regard to the adoption of a standard stone for building. The idea is that, by having stone supplied in regular shapes and sizes, varying sufficiently to prevent an artistic uniformity, it would be possible to have stone stocked by merchants just as bricks are. The matter has been referred to the Quarry Owners' Committee.

THE EXAMINATIONS.**The Intermediate : Testimonies of Study.**

The following modifications have been made in the "Testimonies of Study" required to be submitted by Candidates for the Intermediate Examination :—

1. and 2. Two sheets showing the application of one or more of the Orders of Architecture to a building. A general drawing of the Building to be given on one sheet, with details on the second.
3. 4. and 5. One sheet of details of Classic Ornament from the round or one sheet of Mediæval Ornament from the round. Two sheets of measured drawings of an existing building or portion of a building, to be selected by the Candidate, with the plottings and sketches.

6. 7 and 8.—Three sheets of working drawings of a building of moderate dimensions showing clearly the construction of floors, roofs, joinery, etc. The general drawing to be drawn to the scale of 8 ft to 1 in. with $\frac{1}{2}$ in. and full size details.

N.B.—Testimonies of Study prepared under the old syllabus will be accepted for approval by the Board if submitted prior to the next Intermediate Examination, to be held in June 1922.

Probationers R.I.B.A.

Since the 1st February 1921, the following have been registered as Probationers of the Royal Institute :—

Althighon : Douglas Birchley, 54 Drakehill Road, New Cross, S.E. 14.
 Ansell : Cecil B., 148 Church Path Road, Exeter.
 Arthur : Eric Ross, 6 Peterboro' Road, Wavertree, Liverpool.
 Asher : John Frank, 63 Edith Road, W. Kensington, W.
 Allen : Ernest Cecil Potter, 2 Clifton Villas, Harold Street, Harerod.
 Anderson : William Beave, Athol Bank, Viewlands Road, Perth.
 Aston : William Joseph, 17 Fisher Street, Willenhall, Staffs.
 Aimes : James Osborne, 8 Blenheim Road, Middlesbrough.
 Brothroyd : Richard John, 11 Ward's End, Habbax, Yorks.
 Bayshaw : Frederick Norman, 532 Chester Road, Ealingdon, Bham.
 Brown : Colin Arthur, 48 Frodsham Street, Ht. Tinnere, Brokenhead.
 Butland : Leonard, 4 St. Stephen's Terrace, Avonby, Yorks.
 Byets : John, De Gray Bank, Wigton, Cumberland.
 Blyth : James Oliver, 22 Trinity Street, Norwich.
 Bird : William Henry Fleming, 6 Old Queen Street, S.W. 1.
 Bristow : William Ernest, 358 Hanton Avenue, Gimsby.
 Brown : John Saeewood, 258 Barnsley Road, Farnmoor, Sheffield.
 Burrington : Thomas, 36 The Mall, Swindon.
 Collins : Leslie Pearson, 15 Milton Avenue, Highgate, N. 6.
 Crawley : Leonard, "West View," Holme, Camforth.
 Coney : Albert Arthur, 111 Mill Road, Cambridge.
 Calvert : Thomas Wm., Waverley Ho., Mallegate, Yorks.
 Chapman : Eric Webb, 18 Norfolk Row, Fargate, Sheffield.
 Cowsley : Benjamin, 32 Agincourt Avenue, Belfast.
 Cameron : Donald John, 149 Warr Street, Glasgow.
 Cooke : Edith Gillion, 8 Annie Gardens, W.S.
 Campbell : Richard George, 20 Berners Street, Ipswich.
 Crowder : Percy A., "Braeside," St. Michaels Hill, Handworth, Birmingham.
 Davis : Charles Maurice, 27 Norton Road, Letchworth, Herts.
 Davenport : Norah Emily, 12 Leonard Place, Kensington, W.S.
 Dean : Cecil, 3 Worsley Grove, Levenshulme, Manchester.
 Du Puy : Alfred Percy, Belgrave Chambers, Ventnor, Isle of Wight.
 Dawney : Percy Wilfrid, 6 Downs Court Road, Purley.
 Dicketts : Harry James, 24 Five Ash Road, Northfleet, Kent.
 Dunn : Richard Russell Anthony, 10 Frederick Street, Sunderland.
 Emmett : John William, 13 Ebor Terrace, King Edwards Drive, Bolton, Lancashire.
 Ellis : Leonard Ernest, 44 Motton Road, Exmouth.
 Flinter : Anthony Thomas, 78 Creada Road, Wandsworth Common, S.W. 18.
 Finnegan : Leonard, 58 Tennyson Road, Portwood, Southampton.
 Frazzell : Frederick George, Station Road, Upminster.
 Gosson : Alfred Godwin, 27 Park View, Derby Road, Stapleford, nr. Notts.
 Gonnall : James Munroe, "Ashleigh," Eccleston Park, Prescot, Lancs.
 Gann : Francis Ernest, 55 Edling Road, Wembley, Middlesex.
 Griffiths : Edwin Daydon, 1 Orlando Road, Clapham Common, S.W.
 Gibbs : William Leslie, 25 Poplar Walk, Herne Hill, S.E. 24.
 Gable : Jack Elstrom, 7 St. Oswald's Road, Small Heath, Birmingham.
 Grierson : Thomas, Medmore, Daviot, Fife.
 Gimson : Humphrey Morley, 713 Aylestone Road, Leicester.
 Glossop : John, Bradford House, Alnford.
 Gledhill : Reuben Harold, 60 71 Virginia Street, Southport.
 Gledwell : John Roberts, 21 Melrose Street, Newton Heath, Manchester.
 Gregory : William John Henry, 14 Russell Road, Setton Park, Lpool.
 Harris : Joseph Frank, "Moor End," Boston Spa, Yorks.
 Harris : Kenneth William Furzeaux, Little Preston, Aylestone, Kent.
 Hartley : Vincent Francis, 4 Hall Avenue, S. Shore, Blackpool.
 Hilton : Fred, 43 Fox Street, Hollywood Park, Edgeley, Stockport.
 Henson : Arthur Edward, 80 Abington Street, Northampton.
 Harris : Arthur Fred, "Withedwood," Shirley, Southampton.
 Holman : Edward, 74 Cowley Road, Oxford.
 Hall : Alfred Thomas Herbert, 4 King's Drive, Whitby Bay.

Hamilton: Geo. W. Ham, 76 Chessold Road, N. 16.
 Harrison: James Bedlington, Sunny Place, Robin Hood Bay, Yorks.
 Howes: James F. Brick, Port Vale Ho., Hertford.
 Harvey: John Dean Monroe, 42 Castle-on Mansions, S.W. 13.
 Jones: Reginald L., 60 Overton Terrace, Brighton.
 Jackson: Frank Leonard, 18 West Side, Clapham Common, S.W. 4.
 Kelsall: John Scott, c/o Sir C. A. Nicholson, 2 New Square, W. 6.
 Kimber: Boden Martin, 68 Portwood Road, Southampton.
 Lane: George Charles, 3 Garden Village, Newby W., Cullisle.
 Lane: William Kennedy, 8 Weston Place Avenue, Reading.
 Loxart: Alwyn Price, c/o Greyhound, May Bank, Stoke-on-Trent.
 Marsh: John Henry, 26 North End Green, North End, Portsmouth.
 Morgan: Robert John Morris, 1 Brunswick Place, St. Paul, Cheltenham.
 M. A.: Francis Joseph Thompson, 51A Charlville Road, W. 11.
 Milnes: Harry Dyson, 21 Brooklyn Street, Beverley Road, Hull.
 Martin: Nathaniel, 135 High Street, Garsington-on-Sea.
 Moon: Albert, 212 Brunshaw Road, Burnley.
 Mills: James Reid, 11 Bank Street, Locher, Dundee.
 Morrish: Norman Walter, 2 Hammet Street, Taunton.
 Macdonald: Alister Glidstone, 9 Howitt Road, N.W. 3.
 Mayhew: James William, 6 Palmer Road, Walthamstow, E. 17.
 Midgley: Frederick, 17 Boulevard, Weston-super-Mare.
 Matthews: Albert Stephen, 58 Oglander Road, S.E. 15.
 Nield: Rodney Herbert, Lane Cottage, Stoke Green, Slough.
 Oxenbury: Thomas Bernard, Bridge House, Totnes, Devon.
 Oldacre: William Bernard, 139 Pines Road, Harkhill, St. Leonards, Kent.
 Pegg: Alfred Lloyd Frank, 12 Wilford Lane, W. Bridgford, Notts.
 Pether: Wilfred Guy, 22 Grove Place, Bedford.
 Partidge: William John, 13 St. Peter's Road, Holloway, N.
 Price: Everard Vincent, 21 All Saints Street, Nottingham.
 Pitter: Geoffrey William Knowles, 92 Blythwood Road, Goodwood, Essex.
 Powell: Maynard Henry, 40 Woodstock Road, Moseley, Birmingham.
 Phipps: Alfred Stanley, 212 Marlboro' Road, Leicester.
 Platt: William Taylor, Highfield, Shaw, Lancs.
 Payne: Arthur John, The Parady, Caeiphill, Glam.
 Powell: Evan Griffiths, 16 George Avenue, Long Eaton, Notts.
 Paton: Arthur George Reivers, 115 Bournville Lane, Bournville.
 Plumtree: Henry Sanderson, 49 St. Matthias Road, Nottingham.
 Prangnell: Cecil, 43 Edmund Street, S.E. 7.
 Rendle: William Augustus, 238 Fawcett Road, Portsmouth.
 Rufus: Leslie Montagu, 132 Francis Avenue, Southsea.
 Ross: Frederick John, May Bank, Perth Road, Blairgowrie.
 Robertson: Albert Victor, Audley, Attlede Road, Inverness.
 Roberts: Alfred George, 49 Howden Road, S.E. 19.
 Salt: Geoffrey Wyndham, 27 Selborne Road, Hendonworth Wood, Birmingham.
 Sharpe: Albert Lawrence, 52 Fosse Road South, Leicester.
 Shaw: Herbert Hugh, 5 Wellsley Terrace, Belvedere Road, Liverpool.
 Suse: Alfred John, 4 Gurnea Road, Fishponds, Bristol.
 Schofield: John Harold, 255 Branshaw Road, Burnley.
 Smith: Geoffrey John Stimples, 3 River Walk, St. Austell.
 Saunders: Victor Clate Ludlow, 8 St. James Villas, Winchester.
 Sabright: John Eaton, 2 Selborne Road, Worcester.
 Smith: John Allen, "East View," Unsworth, New Washington, Durham.
 Tower: Robert William, 15 Cambridge Street, Norwich.
 Thompson: Frederick Noel Ewart, 4 Trafalgar Square, Scarborough.
 Turner: Henry Victor, 3 Sandringham Gardens, Kensington, W. 8.
 Tittley: Percival Edward, 23 Clarence Street, Warrington.
 Tozer: Cecil Reginald, New Road, St. Austell.
 Fisher: Wilfred, 186 Front Street, Chester-le-Street.
 Vuley: Herbert, School Ho., Blacko, Nelson, Lancs.
 Venton: Cecil William, 10 College Road, Exeter.
 Willis: Norman, 39 Seethinghall Street, Newcastle-on-Tyne.
 Wingley: Fred Hill, 4, 18 Lytle Terrace, Stanley Road, Wakefield.
 Wolf: William Eugen, 23 Fore Street, St. Mary Church, Torquay.
 Wolter: Cecil Harold Alva, Gremetrol, St. Bonabas Road, Caversham, Oxon.
 Whiteside: Walter Jack, c/o R. W. Featherstone, Esq., St. Peter's Road, Sherringham.
 Wood: Frederick William, c/o F. S. Clark, Esq., 31 Thornley Street, Wolverhampton.
 Wightman: George William, "Woodlark," Lords Hill, Dunnington, nr. Rotham.
 Wallis: Harold Vincent Gunn, 101 Bostock Avenue, Northampton.
 Wiltshire: Alex. John, 54 Byrley Street, Burton-on-Trent.
 Woolnough: Christopher Arthur Edward, 131 Norwich Road, Ipswich.
 Wood: Neville Blackwell, 114 Arthur Street, Derby.
 Wright: Joshua Stanley, Savile Ho., Savile Road, Leeds.
 Walters: John, 39 Kelsake Road, N.W. 6.
 Williams: Owen Pashy Denny, Burnish Rectory, Staffs.
 Yorath: Frederick George, "Valley," 3 Oakville Avenue, Burnish, Staffs.

"RECOGNISED" SCHOOLS.

School of Architecture, University of Liverpool.

Scholarships and prizes for 1921 have been awarded as follows.

Fourth Year

HOLL TRAVELLING SCHOLARSHIP, £50. E. R. Arthur.

Third Year

HOLL TRAVELLING SCHOLARSHIP, £50 (awarded by the Liverpool Architectural Association). E. W. Martin.
 LEVER PRIZES IN ARCHITECTURE. 1st Prize, £15, divided between Edwin Williams and H. W. Pritchard; 2nd Prize, £10, divided between E. M. Fry and D. Brooke.

Second Year

TWO RIBA JARVIS TRAVELLING SCHOLARSHIPS, £50 each. J. H. Forshaw and Edwin Williams.

First Year

ELMES MEMORIAL ENTRANCE SCHOLARSHIP, £30. E. H. H. Higham.
 UNIVERSITY STUDENTSHIP, £30. Donald Bladshaw.
 ARCHITECTS' JOURNAL PRIZE ESSAY (open to students in all years). H. S. Silcock (2nd year student).

Department of Civil Design

LEAVE PRIZES IN TOWN PLANNING. 1st Prize, £15, divided between B. Butler and R. D. Jones; 2nd Prize, £10, divided between S. O. Hill and E. Reilly.

The following are the Examination Lists in the Faculty of Arts for June, 1921.

DEGREE OF B.A. ARCH. (*Old Regulations*). FINAL EXAMINATION: S. H. Lakshminarasappa.

DIPLOMA IN ARCHITECTURE (*Old Regulations*). B. Butler.

DIPLOMA IN CIVIC DESIGN: B. Butler, R. D. Jones.

CERTIFICATE IN ARCHITECTURE (*Old Regulations*). Class I.*—W. Beeston, W. T. Greenfield, W. R. Jones, D. J. Lewis, E. A. Newton, T. Salisbury, H. E. Smith, F. Velarde, S. E. E. Wesker.

Class II.—C. E. Azurdia, M. Fisher, R. B. Havers, R. C. Holt.

CERTIFICATE IN ARCHITECTURE (*New Regulations*). Class I.—J. S. Allen, H. F. Billimoria, J. Blackett, E. E. Budge, D. Brooke, A. O. Chatterley, A. M. Chisholm, E. H. Cornes, J. H. Crowther, W. B. Edwards, J. H. Forshaw, E. M. Fry, E. Fryer, P. B. Haswell, E. H. H. Higham, H. Hirst, C. H. Hutton, L. John, H. B. Jones, I. R. Jones, R. H. Jones, T. E. Jones, C. R. Knight, G. S. Lewis, C. J. W. Lindley, S. E. Mahon, E. W. Martin, Doris Musker, G. L. Owen, J. Parry-Jones, L. A. G. Pritchard, H. W. Pritchard, M. Raafat, H. Roberts, H. G. Simms, A. C. Townsend, R. W. H. Vallis, E. Williams, Harry Williams, Howard Williams, E. G. Woolley, T. Yoxall.*

DEGREE OF B.A. ARCH.

FIRST EXAMINATION: F. N. Astbury, H. L. Bailton, Sarah J. Dewsnup, C. A. Minoprio, H. A. Peters, C. C. Shaw, T. T. Wills.

SECOND EXAMINATION: A. Allinson, E. H. Ashburner, C. T. Bloodworth, D. L. Bridgewater, R. W. Donaldson, J. C. Gornie, W. V. Jenkins, J. H. Miller, J. H. L. Owen, H. G. Phillips, H. S. Silcock, R. H. Turner.

THIRD EXAMINATION: J. S. Allen, H. F. Billimoria, A. O. Chatterley, A. McL. Chisholm, W. B. Edwards, J. H. Forshaw, E. M. Fry, P. B. Haswell, E. H. H. Higham, C. H. Hutton, L. John, H. B. Jones, C. R. Knight, G. S. Lewis, S. E. Mahon, E. W. Martin, G. L. Owen, J. Parry-Jones, L. A. G. Pritchard, H. W. Pritchard, M. Raafat, H. Roberts, R. W. H. Vallis, E. Williams, Howard Williams.

FOURTH EXAMINATION, WITH HONOURS IN ARCHITECTURAL DESIGN: E. R. Arthur, G. Checkley, I. R. Jones, S. Welsh.

* These students obtain exemption from the Intermediate Examination RIBA.

DIPLOMA IN ARCHITECTURE.

FIRST EXAMINATION : A. Aspland, J. W. Caul, A. D. R. Cowley, R. E. S. Dean, Doris E. Dixon, Beatrice M. Fitzgerald, H. L. Fox, M. Roushdy, Frances T. Silcock, H. Theatle, G. I. Thomas, Maud A. M. Wall, Sheelah A. Wilkinson, L. G. Zwingel.

SECOND EXAMINATION : D. Bradshaw, Doris D. Debert, G. C. Douglas, C. G. Edwards, G. E. S. Ehrhardt, J. R. Furbur, L. C. Howitt, O. H. H. Nuttall, Doris Oversby, C. J. Priestly, J. M. Taylor, I. I. el Wahaby.

THIRD EXAMINATION : J. Blackett, E. E. Bridge, D. Brooke, E. H. Cornes, J. H. Crowther, E. Fryer, H. Hirst, R. H. Jones, T. E. Jones, C. J. W. Lindley, Doris Musker, H. G. Simms, A. C. Townsend, Harry Williams, E. G. Woolley, T. Yonall.

FOURTH EXAMINATION, WITH DISTINCTION IN ARCHITECTURAL DESIGN : W. Elsworth.

Manchester School of Architecture.

The following Scholarships and Prizes for Session 1920-21 have been awarded :—

Manchester District Institute of Builders' Travelling Studentship (£120) to Mr. W. H. Owen.

The R.I.B.A. Jarvis Travelling Studentship (£50) to Mr. R. A. Cordingley.

Special prize given by Mr. Barlow for Town Planning (£10 10s.) to Mr. R. A. Cordingley.

The Manchester Society of Architects give the following prizes :—

The M.S.A. Prize for Measured Drawings (£20) to Mr. R. A. Cordingley.

Special Prize for Measured Drawings (£12 12s.) to Mr. F. J. Halliday.

Bradshaw Gass Prize for Measured Drawings (£12 12s.) to Mr. G. G. Quarmby.

Beaumont Prize for Measured Drawings (£3 3s.) to Mr. R. Byrom.

President's Prize for the best Essay (£5 5s.) to Mr. R. Byrom.

Edinburgh College of Art.

The following is a list of awards of bursaries and book prizes to students of the Architecture Section, Edinburgh College of Art, July 1921 :—

TWO TRAVELLING SCHOLARSHIPS of £40 each on completion of five years' course : Stewart Sim and Frank Wood.

HENRY JARVIS TRAVELLING STUDENTSHIP of £50 : William Sutherland.

MINOR TRAVELLING BURSARIES : £10, J. Cornel Pringle and William Allan Muir ; £7 10s., John D. Coventry and Edwin H. H. Williams ; £5, John A. Arthur, Archibald Craig, James A. Johnston and George L. H. Walls.

BOOK PRIZES : £2, Thomas B. Gibson ; £2, James J. Gordon, Walter T. Henderson, Percy W. A. Morton, Norman A. G. Neil, Thomas Scoon, Harry Slater, Lawrence H. Smart, William D. Mackenzie, and Leslie G. Thomson ; £1, Alex. C. Cairns and Robert S. Ellis.

Robert Gordon's Technical College, Aberdeen.

At the annual adjudication held last month eleven candidates for the Diploma in Architecture granted by the Governors of Robert Gordon's Technical College, Aberdeen, submitted works in support of their applications. The works were adjudicated by Mr. Paul Waterhouse, F.S.A., President R.I.B.A., as representing the Scottish Education Department, and by a local Committee of Architects practising in Aberdeen. All the candidates were adjudged to have attained to diploma standard, their names being :—Kenneth H. Brown, Robert Galbraith, James R. Matland, Douglas Molyneux, Ian A. Moodie, Robert H. Morrison, William Peter, Donald C. Rae, Thomas S. Sutherland, William L. Taylor, John Yeats.

At the same time five post-diploma students submitted works with a view to having their diplomas endorsed in respect of a year of post-diploma study in the College. The endorsement was approved of in every case, the students concerned being :—James Donald, Charles R. Gallie, George A. Mitchell, Alexander S. Reid, William J. Taylor.

In connection with the assessment of diplomas, one or more local scholarships of considerable value will be awarded to the candidates ranking highest in order of merit.

A travelling scholarship of £150 is at present being held by Mr. Joseph Addison.

COMPETITIONS.

Partick & Whiteinch War Memorial Competition.

Members and Licentiates of the Royal Institute of British Architects must not take part in the above Competition because the Conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

Chelmsford War Memorial Competition.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competition are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the Competition.

IAN MACALISTER, *Secretary R.I.B.A.*

R.I.B.A. Competitions Committee.

The Council have appointed the following members to serve on the Competitions Committee for the Session 1921-22 :—

The President (Mr. Paul Waterhouse), the Hon. Secretary (Mr. Arthur Keen), Professor Patrick Abercrombie, Messrs. W. H. Ansell, Henry V. Ashley, G. Leonard Elkington, L. Rome Guthrie, E. Vincent Harris, H. V. Lanchester, F. Winton Newman, R. M. Pigott, William A. Pite, T. Taliesin Rees, J. Douglas Scott, Septimus Warwick, Herbert A. Welch, W. G. Wilson.

At their first meeting the Committee appointed the following officers :—

Chairman, Mr. W. G. Wilson ; *Vice-Chairman*, Mr. H. V. Lanchester ; *Hon. Secretaries*, Messrs. Henry V. Ashley and Herbert A. Welch.

Auckland, N.Z. : Competition for War Memorial and Museum Building.

Competitive designs are invited by the Council of the Auckland Institute and Museum, and by the Auckland Citizens' War Memorial Committee, "with the double object," in the words of the Conditions, "of providing a noble and dignified building suitable for the War Memorial of the City and Provincial District of Auckland, and which will also form a worthy repository for the collections of the Auckland Museum, including its unrivalled Maori treasures." The site is on the Observatory Hill, Auckland Domain—a large park of 200 acres. The cost of the building is not to exceed the following alternative amounts : (a) For a

building of permanent fireproof materials. £120,000 ; (b) For a building of permanent fireproof materials, with each elevation other than those abutting on internal courts or areas or on the site of future extensions, faced with an approved building stone. £170,000. The designs will be judged and the award to the successful competitor made by the Council and the Committee jointly, with the assistance of architects of ability and standing, not competitors, who will be called in in an advisory capacity. Premiums : First, £650 ; Second, £250 ; Third, £100. The premiated designs become the property of the Council of the Auckland Institute and Museum and will be publicly exhibited with the other designs after the award. Under Clause 7 of the Conditions the promoters are not bound to engage the author of the winning design as architect, but it is understood that should an architect be engaged for the building, the author of the winning design will be given the work. If the author of the winning design is employed the premium will be deducted from his commission. The designs are to be in accordance with the by-laws of the City of Auckland. The promoters do not bind themselves to make an award, and will only do so from those designs which they determine to be of sufficient merit and suitability. Designs must be in the hands of the Secretary of the Council, Mr. T. F. Cheeseman, Princes Street, Auckland, by the 28th February 1922. Mr. J. H. Gunson, Mayor of Auckland and President of the Auckland Institute, sends through the Secretary R.I.B.A. an invitation to architects in Great Britain to compete. The Conditions and Schedule of Requirements, together with the plan of site and levels, may be inspected at the R.I.B.A., 9 Conduit Street, W.

Staff for Royal Engineer Services.

Applications are invited from gentlemen desirous of accepting temporary commissions on the " Staff for Royal Engineer Services " for a period of two years. Candidates must possess good technical qualifications as architects, civil engineers, or surveyors. A thorough knowledge of Quantity Surveying is essential. Preference will be given to candidates holding degrees, or diplomas of the Surveyors' Institution, and to ex-officers with war experience. The age of candidates must be between 21 and 30. A certificate of birth must accompany the application.

Particulars as regards technical training and experience must be furnished with the application, together with two references as to character. Applicants must be medically fit and willing to serve at home or colonial stations.

Successful candidates will be gazetted as Temporary Inspectors of Works with the rank of lieutenant, and will be paid at the rate of £200 per annum, plus Civil Service bonus, amounting to £233 : total, £433 per annum. The Civil Service bonus, however, varies with the cost of living and is likely to decrease. They will not be eligible to receive any other Army allowance, except free passage overseas (if required) and travelling allowances. They will be required to provide themselves with service dress uniform as laid down for the Staff for Royal Engineer Services. A grant towards the cost of provision of uniform will be made to officers who have not previously held commissions.

Applications should be addressed to The Secretary, War Office (F.W.4), S.W.1.

Vacancy for Architectural Assistant in Zanzibar.

A young Architectural Assistant is wanted for the Zanzibar Government. He should be a Public School boy and have been trained in a good office and have had a few years' post-articles experience. The salary is £400, rising to £500 by annual increments of £25, with free first-class passages, and no income tax. If married, Government would pay half his wife's passage. Four months' leave at home after 20 months' service. Free furnished quarters. He might be allowed to take a certain amount of private work provided this does not interfere with his Government work, and if this were permitted it would add greatly to the value of the appointment. Zanzibar is hot, going to 91° in the hot weather, but not too unhealthy, and the climate is very pleasant from April to November. Cheap polo can be had and practically all other games. Applications should be addressed to Mr. John H. Sinclair, The Secretariat, Zanzibar.

NOTICES.

Election of Members, 5th December 1921

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday 7th November, 1921 :—

AS FELLOWS :

DAVIDGE : WILLIAM ROBERT [A. 1904], 27 Abingdon Street, Westminster ; and 63 Lewisham Park, S.E.
BIDDLEPH-PINCHARD : CHARLES HENRY [A. 1921], 9 Staple Inn, Holborn Bars, W.C.2 ; and Eghams Close, Beaconsfield, Bucks.

MEMBERS' COLUMN.

Members, Licentiatees and Students may insert announcements and make known their requirements in this column without charge. Communications must be addressed to the Editor, and be accompanied by the full name and address. Where anonymity is desired, box numbers will be given and answers forwarded.

Resumption of Practice.

Mr. Ashley F. Benjamin [A.] has now resumed practice, and has taken offices at 69, George Street, Portman Square, W.1. Telephone : Mayfair 597.

Architectural Association Hockey Club.

Any members of the A.A. who desire to join this club will be welcomed. The club has been affiliated to the Herts County Hockey Association and a series of men's matches is being arranged for the winter season. Communication should be made with the honorary secretary at 35, Bedford Square, W.C.1.

Appointments Wanted.

A R.I.B.A. seeks situation as Draughtsman in Architect's office. Many years' experience in preparing working and detail drawings and tracings, and measuring existing buildings. Salary, five guineas per week. Would be willing to help Architects temporarily at low terms per hour. Good references.—Address Box 118, c/o Secretary R.I.B.A.

ASSOCIATE, aged 28, wishes to obtain position with a good firm, preferably with a view to partnership later—conditions to be discussed. Three years English domestic and five years Canadian general experience, which is similar to American. A.A. training. Travelled in France, Italy, and North America.—Address Box 228, c/o Secretary R.I.B.A.

ARCHITECT'S ASSISTANT—Engagement desired. Associate, aged 30. Specimens draughtsmanship etc., and references, if required, at interview. Salary £6 10s. or part time.—Address Box 238, c/o Secretary R.I.B.A.



FIG. 1.—LAMPORT HALL: WEST FRONT.

From a photograph kindly lent by the proprietors of *Country Life*

SOME NEWLY FOUND DRAWINGS AND LETTERS OF JOHN WEBB.*

By J. ALFRED GOTCH, F.S.A. [F.].

LAMPORT Hall, in Northamptonshire, has been the seat of the family of Isham since the end of the sixteenth century, when an ancestor of the present baronet moved thither from Pychley and built himself a house. Being one of twenty children, he had adopted trade as a livelihood and was, according to his epitaph, once Governor of the English Adventurers in Flanders and thrice Warden of the Mercers of London: he died in 1595. His great-grandson, Sir Justinian Isham, the second baronet, succeeded to the property in the year 1651, and shortly afterwards contemplated the modernising of his house. Being a man of learning and of cultivated taste, he went to the most learned and cultivated architect of the time in the person of his friend, John Webb. Webb supplied him with the necessary drawings and details, which were accompanied by explanatory letters. Some of these drawings and letters have been preserved. They were considered of sufficient interest to be mentioned by Bridges in his history of the county as long ago as 1720, and it is not often that Bridges departs from the even tenor of his way through ancient records to call attention to any such matter as the designs for a house. The drawings were valued by members of the family with antiquarian leanings, but to others they were unknown, and it is only within the last few months that they were brought to recollection again and, by the kindness of Sir Vere Isham, were placed at disposal for examination. They are in fact of great interest, for they came direct from Webb's hand, they bear his signature and they are made alive through the explanatory letters which he sent with them. Beyond the light they

* Kindly lent by Sir Vere Isham, Bart.

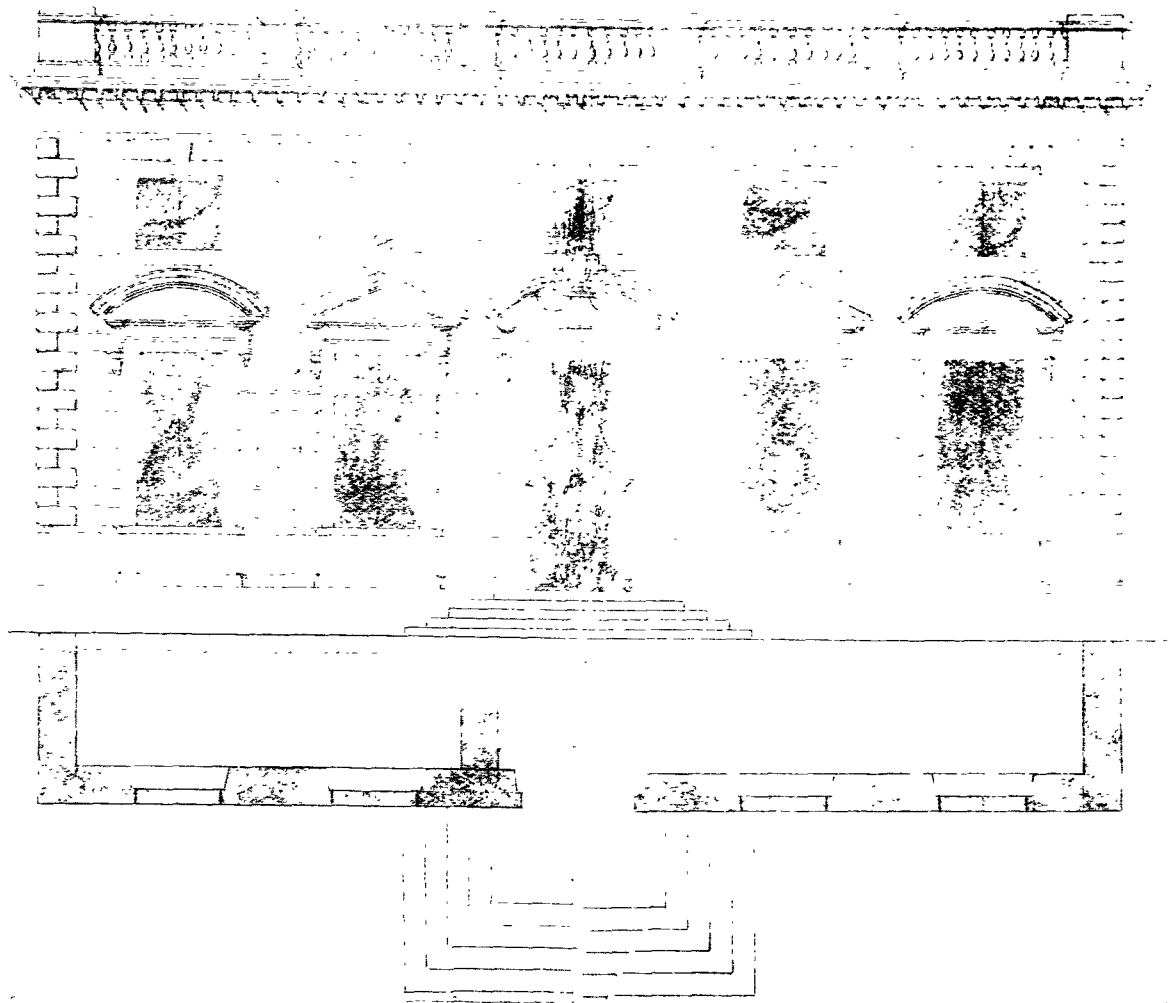


FIG. 2.—LAMPFORT HALL. WEBB'S DRAWING OF THE NEW FRONT.

throw upon Webb himself, they show how an architect carried out his work in those days, and how he made himself responsible not only for the general design, but for the details of the mouldings as well. Yet withal much was left to the mason, who carried out the work with little or no supervision. Indeed the means of locomotion of the period gave but little opportunity for an architect in London to superintend his work in the country. Instructions were sent through the client and not direct to the workmen, which was the less risky in this case inasmuch as Sir Justinian was a man of knowledge and intelligence.

The drawings and letters were sent by the carrier, and the former were enclosed, in one instance at least, in a paste-board case wherein they were sewn up. The letters give us, incidentally, a little information as to Webb's practice. His office was in Scotland Yard, Westminster. He was doing work for the Earl of Peterborough at Drayton, in Northamptonshire, indeed there is a drawing of a chimney-piece there by Webb in the Burlington-Devonshire collection at the R.I.B.A. He was also engaged on some work at Belvoir Castle, in Leicestershire, and at Lord Dacre's in Kent. These are clients whom he happens to have occasion to name. But in addition to architectural work, Webb, as he himself tells us, undertook to advise his clients in the matter of pictures, statues and other works of art; and here we find him giving very sensible advice to Sir Justinian in respect of certain Italian

pictures upon which the baronet had his eye. A quaint touch is introduced where he fears lest Lady Isham's modesty may be shocked by the nude, and it is interesting to find how unchangeable has the British matron been throughout the ages.



FIG. 3.—PLAN AND SECTION FOR THE WINGS
(Added about 1732 to Webb's block, which is the intermediate uncoloured portion.)

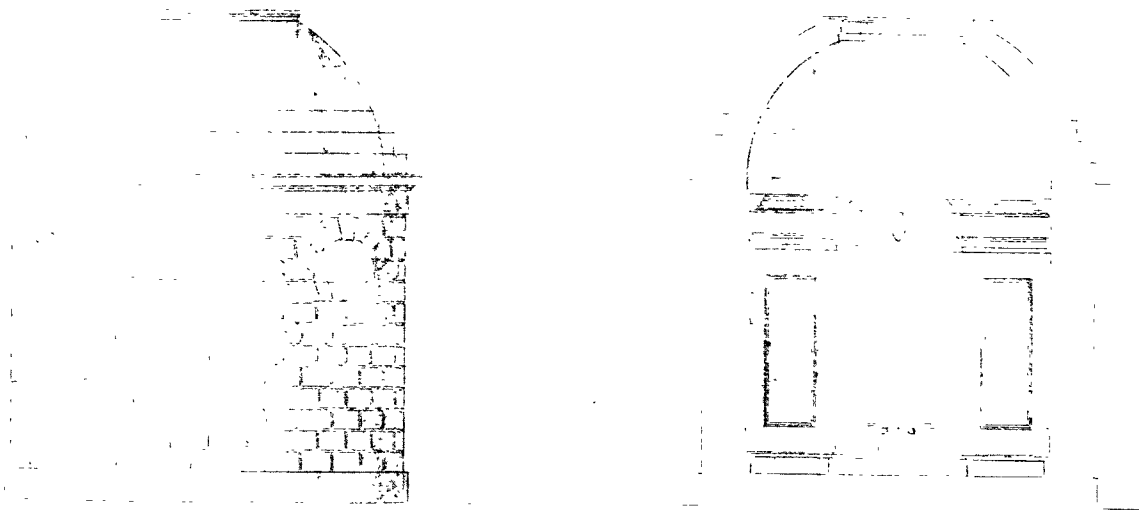


FIG. 4.—ELEVATION AND SECTION OF THE DEPOSITORY

The letters speak for themselves, but it has seemed desirable to preface each one with a few notes explanatory of its contents.

LETTER I.

This letter is dated from Scotland Yard on 19th June, 1654. The particular "moulds" and "schitzo" which accompanied it are not identifiable, but there is an elevation of half the central projection of the front to a scale of 5 feet to 3 inches, which may be the schitzo referred to; if so, the upper storey was subsequently modified.

This

For his Honored friend S^r Justinian
Isham K^t and Baronett.

S^r

I have sent you downe by the Carrier as many moulds as his short returne would permitt with a schitzo of the front as you desired, by the next you shall receive the whole front, with a portico added wch you may take or leave at pleasure, though I am for it, it being a great ornament & much usefull, & I will so ordered yt that it shall not appeare temple like. I approve of all your proceedings & have ordered the moulds & drawings accordingly. I shalbe more large in my next, the carrier's stay not permitting mee time to enlarg my selfe at my present, however I shall remayne

yo^r assured freind
to serve you

JOHN WEBB.

Scotland Yard
June 19th 1654.

LETTER II.

This is also dated from Scotland Yard, about a month later than the last. The design for the front is given in Fig. 2: the design, that is, for the central part thereof (see also the photograph, Fig. 1). It would appear that the central part is all that can be attributed to Webb. His drawings for the house refer to this portion only, and other evidence points to the two wings having been added about the year 1732. The upper windows are much smaller than in the assumed schitzo of letter No. I., and they were carried out as here drawn. The porch is drawn on three small pieces of paper, one for the front, cut close to the drawing in order that it might be applied to the principal drawing: one for the side view and the third for the plan; it was not built, however. The owner of Belvoir Castle at this time was John, eighth Earl of Rutland, who, according to his biographer, "had the good conduct to disengage himself from the extravagancies of those times." Nevertheless the Parliament in 1649 ordered his castle of Belvoir to be demolished, and that the damage so caused should be referred to the Council of State. The claim for compensation was apparently put at £1,500, but without success. If the figure named represented the whole damage, the destruction could not have been great. But whatever it was it necessitated repairs, and apparently Webb was employed to superintend them.

[Single sheet. No address.]

S^r

I have sent you downe by Richard Branson the designe for the front of your intended building at Lamport in which I suppose is fully observed what you advised mee of, only in the second windows I have varied, because if made above 4 fo. high as here drawne they will never have that gracefulness as now they beare, and at that proportion they will yeild light sufficient for your rooms, whereof you need not doubt. I have sent also the draught for a porch, which wilbee much better and more comodious then without one, and adds the more variety to the worke, the order thereof being nevertheless preserved. I hope ere long to visitt you at Lamport, and what you shall determine in the meane while, I shall either satisfie you upon the place, or alter it, if needs bee. I beginn my journey hence, god willing on munday next for Belvoir castell, intending to bee with you either the latter end of the next weeke, or at farthest the weeke following, certaine time I cannot pitch upon, in respect I know not how long I shalbe detained at Belvoir. In the meane while give mee leave to subscribe my selfe

S^r

yo^r assured ffreind to serve
you

JOHN WEBB.

Scotland Yard
July ye 20th 1654

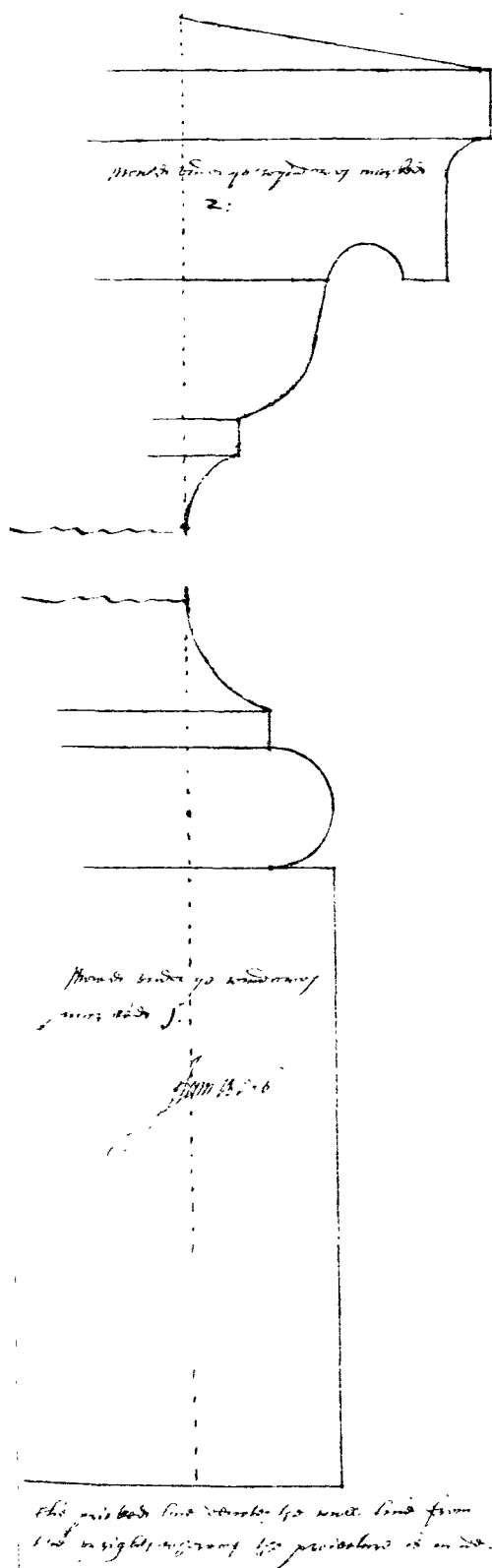


FIG. 5.—SOME OF THE MOULDINGS OF THE FRONT.

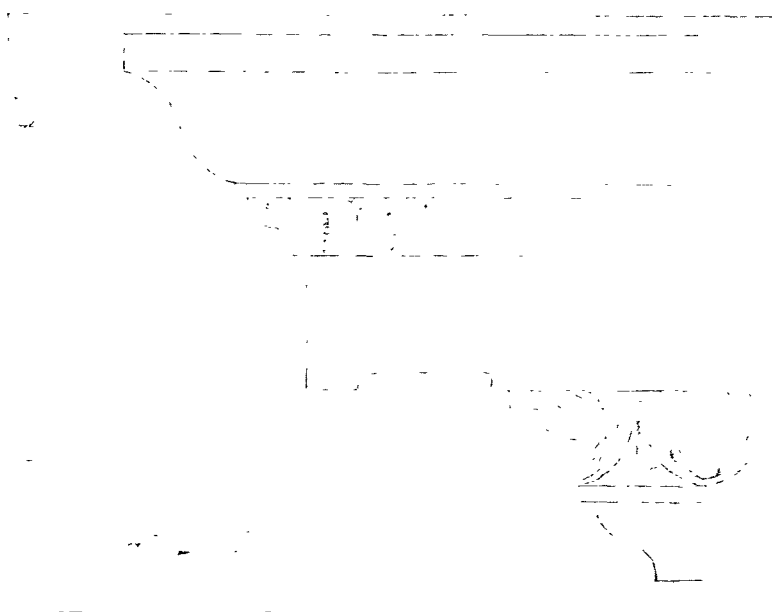


FIG. 6.—CORNICE OF THE CHIMNEY-PIECE IN THE MUSIC ROOM.

The note at the left-hand bottom corner reads: "Revaile mould in the table of the lower freese betwixt the festoons."

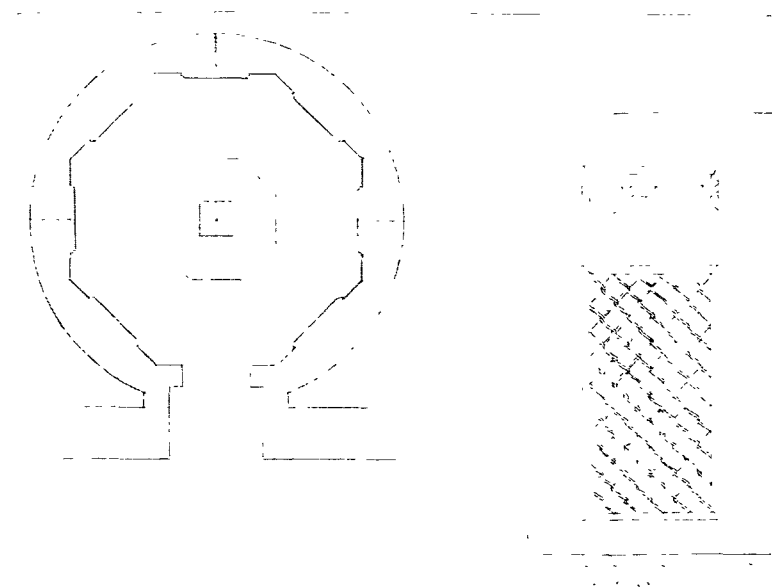


FIG. 7.—PLAN OF THE DEPOSITORY AND DETAIL OF ITS DOOR

LETTER III.

This letter is dated 22nd February, 1654 (that is 1655 according to our method of reckoning). During the seven months which had elapsed since the last letter was written the design had been definitely accepted, and no doubt the foundations and a certain height of walling had been carried out. Webb's work consisted of a new block replacing a portion of the old house—the rest of the Elizabethan building was suffered to remain, and it survived until about 1820 (except so far as affected by the wings added to Webb's part), when it was pulled down and replaced by a new building in the Elizabethan style of the period, designed by Henry Hakewill. This in its turn was rebuilt in later years, but that (as the novelists say) is another story. Webb must have made a plan, but it is not to be found. There is, however, a plan (and section) made for the erection of the wings, which shows, by the uncoloured portion of the main front, the extent of Webb's work (Fig. 3). The original porch, hall and screens of the old house are included, but the reader must imagine for himself the remainder, which extended nearly as far as to where the section is drawn. He must also delete the left-hand staircase, which is part of the scheme for the alterations: the other (of which two flights of seven steps are indicated) was the actual principal staircase.

"The moulds for all your stoneworke" are preserved, and some of them are given in Fig. 5. They include, as a matter of fact, all the mouldings from the ground up to the rail over the balusters, and are given on eight sheets of paper. They are signed "John Webb," and are dated 1654, although not dispatched until February 1655. "The designes for the inside of your roome and chimney peece" are for the large room with a door in the centre of the front, a room two storeys in height, now called the "music room." The designs are reproduced in Figs. 8, 10, 11, 12, and the charming drawing of the chimney-piece itself in Fig. 13. They can be compared with the photograph of the same room in Fig. 14. The chimney-piece was executed as Webb drew it, but the lower part of the walls was eventually panelled in oak, and the upper part, as will be gathered from a later letter (No. IV.), was carried out to a different design by French workmen; the foundation of the altered design is probably due to Webb, as well as the oak panelling, but his drawings are not forthcoming. Who the Mr. Marshall was whom Webb wished to employ for the enrichments of the chimney-piece, I do not know, but he was evidently a skilful man, and his memory may have been preserved in connection with other work.

The Earl of Peterborough, whose convenience influenced Webb's arrangements and made the time of his visit to Lamport uncertain, was Henry, the 2nd Earl, who was seated at the ancient house of Drayton in Northamptonshire, about 15 miles off Lamport. The only work at Drayton identified as Webb's is a chimney-piece, of which his original drawing is preserved in the Burlington-Devonshire collection at the library of the Institute.

The drawings sent with this letter were so many that they were sewn up in a pasteboard cover.

This

For the Honored Sr Justinian Isham K^t and

Baronet at Lamport

Northamptonshire.

Sr

I have sent you by Branson the carrier the moulds for all your stoneworke on y^e outside of yo^r building, likewise y^e designes for y^e inside of your roome & chimney peece which I have not yett made aswell because I expect ere long to bee with you, as likewise it being time inough, though if the chimney be sett in hand it were not much amisse because it will aske longer time in working then those things wch are of timber, I meane y^e lower part thereof wch I would have either of yo^r Northamptonshire stone or Portland, & because of y^e enrichments I would wish it were wrought here in Towne by Mr. Marshall. I did thinke ere this to have seene but y^e Ea: of Peterborough having not sent for me as was determined I am uncertaine of my coming into yo^r parts till hee doth, howsoever if hearing from you, you shall have y^e utmost & best advise cann bee given you by

Sr

Ffebr. ye 22th 1654.

you shall receive y^e things
sewed up in a past bord.

Yo^r assured ffreind to serve you

JOHN WEBB.

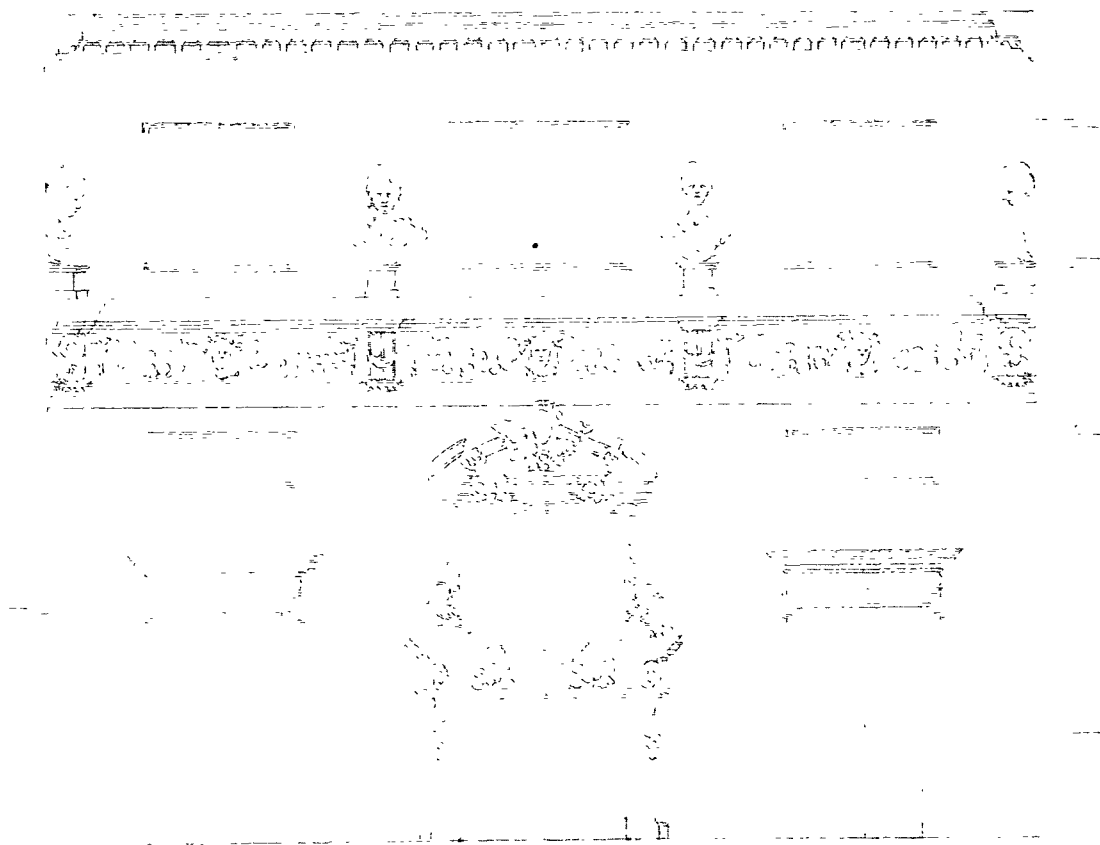


FIG. 8.—THE MUSIC ROOM. SIDE OPPOSITE TO THE WINDOWS.—(Webb's title is "The side next the Chimney.")

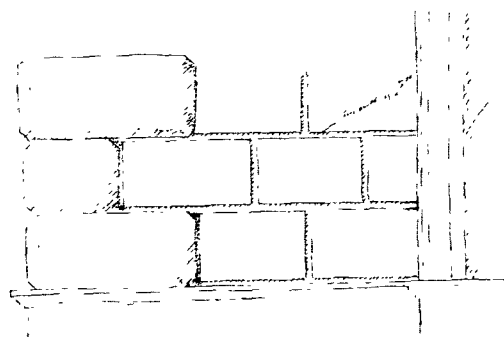
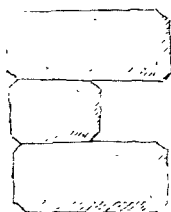


FIG. 9.—SKETCH FOR THE QUOINS AND "RUSTICK."
(The upper sketch is the No. 1, and the lower the No. 2 of Webb's letter (IV).)

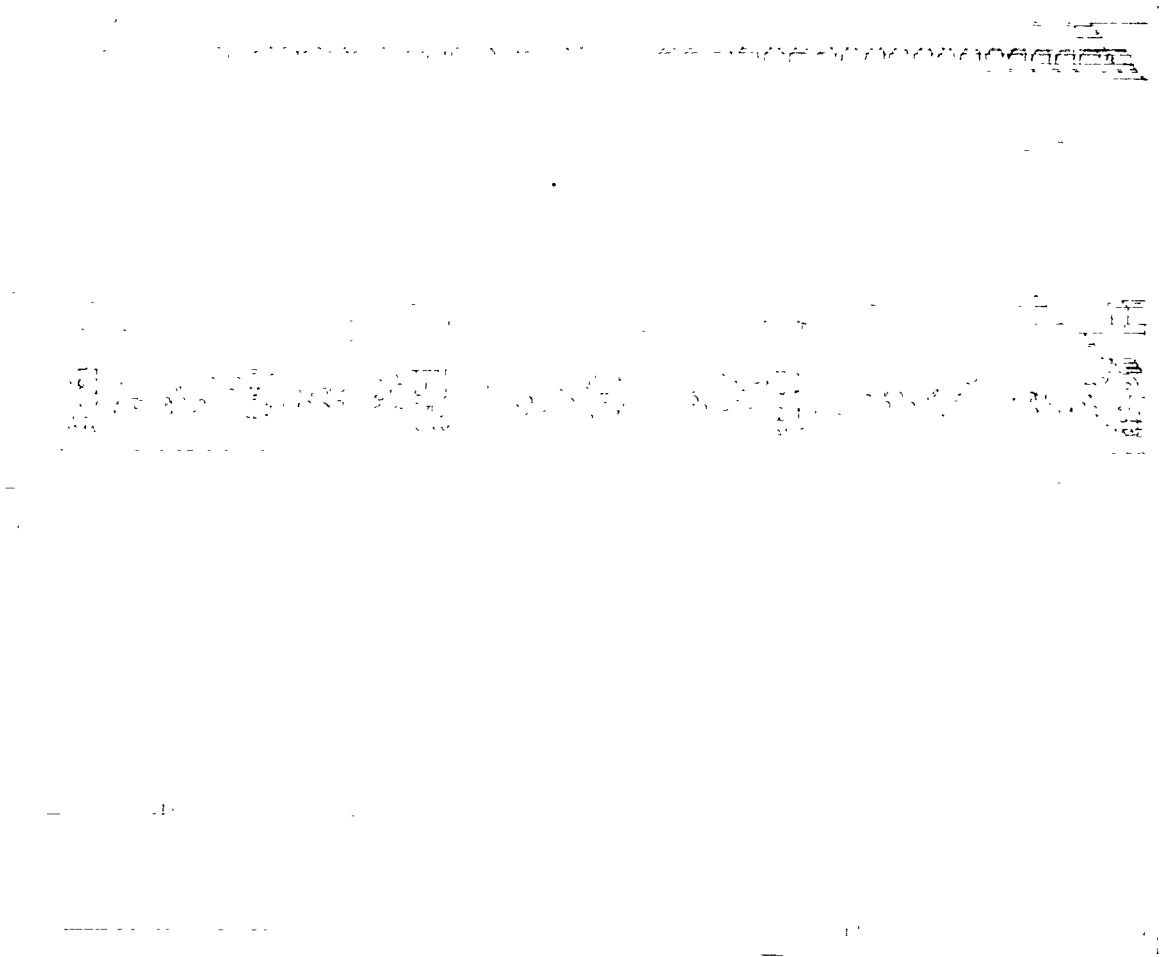


FIG. 10.—THE MUSIC ROOM. THE WINDOW SIDE.
(Webb's title is "The side next the windowes.")

LETTER IV.

Dated April 11th. 1655, and directed on the cover to be left at the Ram in Smithfield for Branson the carrier. The drawing referred to in the first paragraph is given in Fig. 9, and is the only one connected with this letter. But the letter itself is interesting, both in regard to the directions for the masons (whose presumptuous doubts as to the proportions of the mouldings Webb brushes brusquely aside), and to his remarks on the employment of French workmen. The references to the heads standing on the cornice and to the "statues in the neeches" (niches) are readily explained by the drawings. These particular embellishments were, however, not finally adopted: in spite of Webb's objection to the employing of Frenchmen, the actual detail of the ceiling tends to the conclusion that they were employed. That Webb designed the framework of the altered design seems clear, not only from the soberness of its disposition, but from the sentence in which he says "Which way you resolve for the ornaments of your great room I desire to hear, that I may accordingly send you the moulds." The letter concludes with a bit of gossip about politics doubtless very acceptable to the country squire.

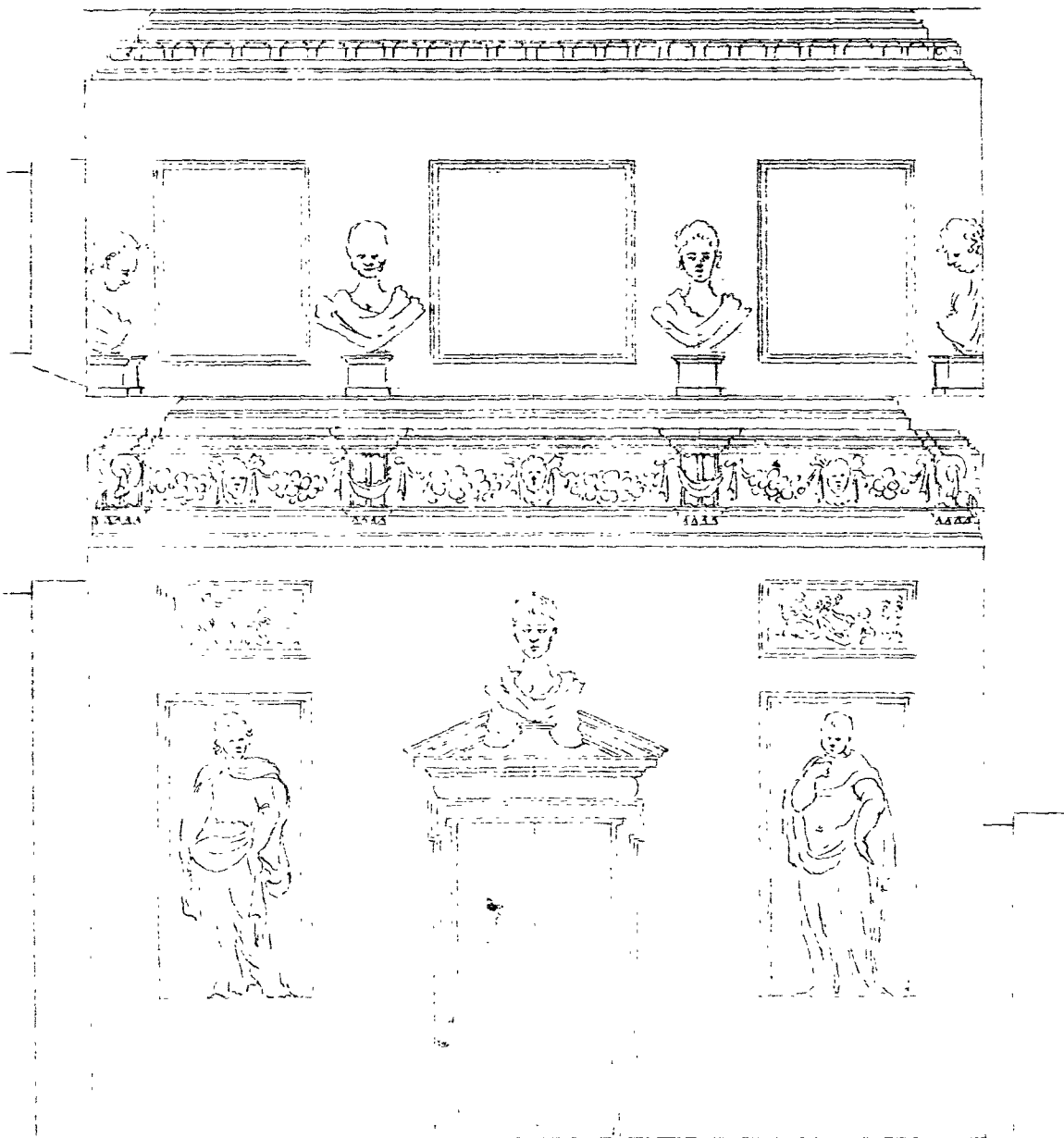


FIG. 11.—THE MUSIC ROOM: NORTH END.
(Webb's title is "The End next the Howse.")

This
For his Honored ffreind S^r Justinian Isham
K^t & Baronett at Lamport
Northamptonshire.
Leave this at the Ramme in Smithfield with
Branson the carrier
S^r

If you make the Quoinnes of yo^r building only rustick (as I remember you said you would) then they must bee just after the manner enclosed marked 1. but if the whole front bee rustickt according to the designe then must they bee after the schitzo 2. the rusticks dying ag^t the window iambs as therein expresst.

ffor the moulds lett not the masons trouble themselves about the proportions, but take care they worke them truly as they are made, lett them band their walls at every five or six course interchangeably with band stones, weh are stones lying quite thorough the thiccknesse of the walls: that they make their quoine stones all of one stone if possible, that their walls are wrought levell by even courses, & that they bring them upp plumbe that they overhang not, that they give them sufficient mortar & wett the stones well with water as they sett them that they may incorporate the better, that ye cornices have as much bedd as proiection y^e is goe as much into ye walls at least as the saile of ye mould, these directions I would have them observe.

I like well for ye lower part of the chimney peece to bee of Weldon stone & if I can possibly by ye next returne I will send you downe the moulds for it, at farthest in Easter weeke, the upper part I would wish rather of Joyners worke then plaister for it will stand much neater, and not bee so subject to casualties as plaister, yett plaister wilbe cheaper, & if you resolve so to doe, I see no reason but the cornices about the roome may be so likewise if yo^r workman will secure ye standing of ye heads upon ye lower most, weh I doubt.

As for yo^r french workman I desire alwaies to employ our own countrimen, for by employment those grow insolent & these for want thereof are dejected, supposing they are not accompted able to performe when indeed it is only want of encouragement makes them negligent to study because a better conceite of foreiners as had then of themselves. I say not this in disaffection to strangers for I love them, as I should expect the like from them if I were abroad but only that our owne natives may be used to good workmanship and enjoy the benefitt their country affords, howsoever if the man bee able in gods name employ him rather then bee at charge to bring one from London especially if you intend statues in the neeches as I designed, but then also lett him cast them for you out of Antique moulds for french fashions are you know fantasticall. Concerning ye Dutchman's paintings I will give you an accompt. Which way you resolve for ye ornaments of yo^r great roome I desire to heare that I may accordingly send you ye moulds. That we shall have a warre with france is doubted but wee feare them not. I am

S

Yo^r assured ffreind to serve
you

April ye 6th 1655.

JOHN WEBB.

LETTER V.

Dated April 16th. 1655. that is, five days later than the last, in which it was promised that the mouldings of the chimney-piece should be speedily sent. The promise is now redeemed, and four sheets of details are despatched, all signed "John Webb" and all but one dated 1655 (see Fig. 6). The reference to my Lord Dacre's house in Kent is, no doubt, to Chevening, which is reputed to have been designed by Webb's master and kinsman by marriage, Inigo Jones. The latter half of the letter is entirely concerned with pictures as to the purchase of which he advises his friend and client, Sir Justinian, not without some regard to the possible prejudices of his lady.

This
For his Honor'd ffreind S^r Justinian
Isham K^t & Baronett at
Lamport

S^r

I have sent you downe all ye moulds for ye Chimney peece as well for ye playster as stone worke, I have heard of Mr Lee and y^e hee is a good workman, but I cannot say it of my owne knowledge because yett hee hath not bene employed by mee. When you resolve for yo^r great room I shall send you ye Cornice for it, the Cartooses in which should bee of stone (not timber) because it agrees better with plaister, ffor ye proportion of ye roome I suppose you need not much feare it for I am now making ornaments of Wainscott for a roome in Kent for my Lo^r Dacres weh is 31:fo: long 22: broad & 24:fo: high weh height If I forgett not yo^r is to bee, because ye Cornice weh makes ye Ceiling I have reduced to that height, his roome is very noble & hee bestows much cost upon it, but I am confident yo^r wilbe more proportionable. Normandy glasse is here at 45^s ye case. Whether you buy it in London or not I would have it cutt out at yo^r owne house otherwise you wilbee cosened, & it may bee carryed safe enough. I have bene with Mr Wase, whose paintings & prises ye enclosed note will shew you: that of Vandikes is a pretty thing but hath bene much spoiled, though indifferently repaired. The Lucretia is by a genuine hand, it hath bene likewise very much spoiled, & not so well made good. The copy after Titian quoad a copy is tollerable but I should suppose it not so pleasing to yo^r Ladye because of ye

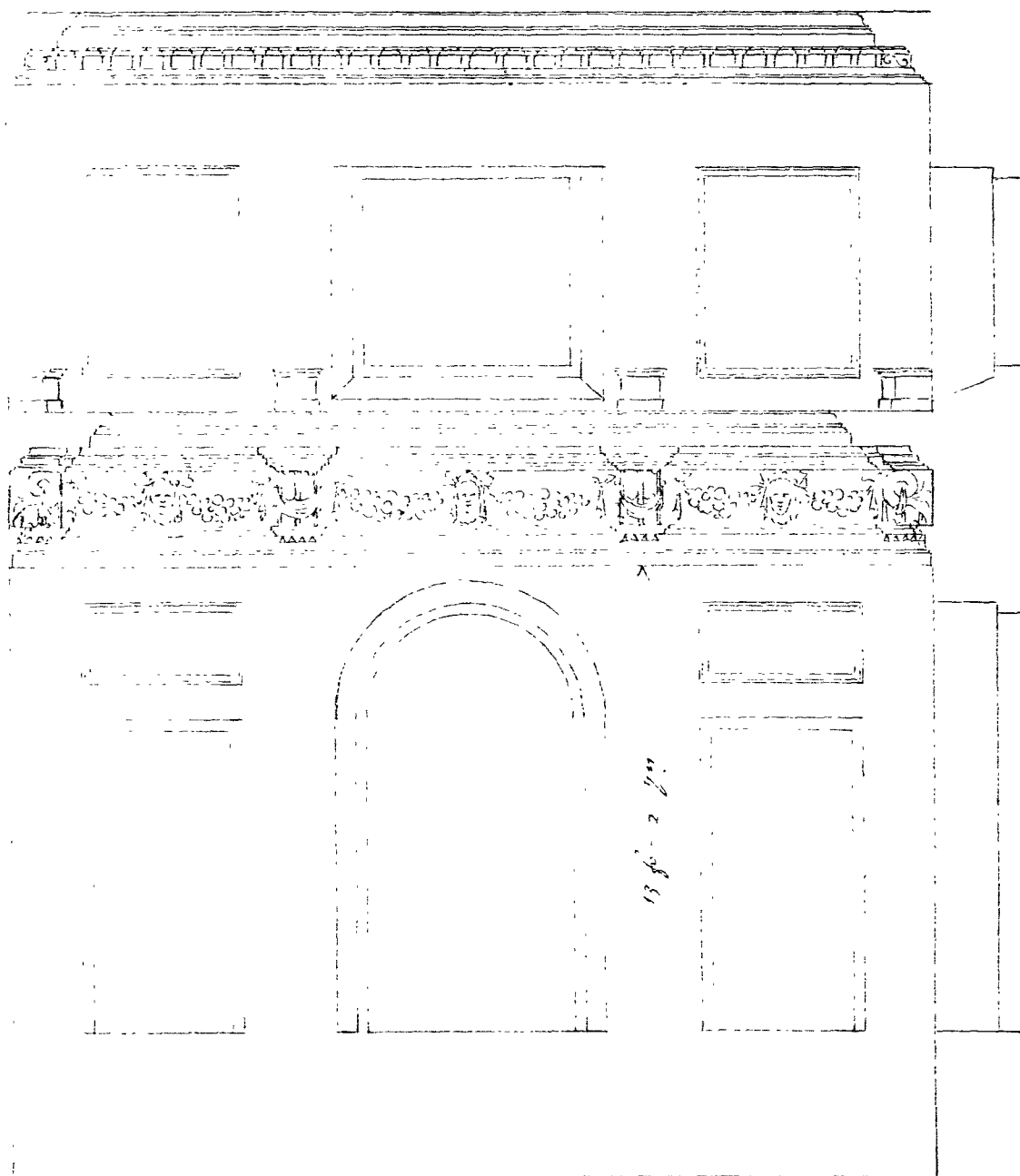


FIG. 12.—THE MUSIC ROOM. THE SOUTH END.
(Webb's title is "The End next the Garden.")

naked woman in it. That after Guercino though it bee very hard yett mee thinks might well be placed over ye dore in yo' roome betwixt ye first window & Ceiling, at wch height much of ye hardness would bee taken off. There is a freind of mine hath a much better copy after Titian & lower prised of ye dying Lucrecia wch at your coming to Towne you may see. There is also a merchant in London hath lately brought severall paintings out of Italy aswell copyes as originalls wch you may also see, in ye meane while I will see you & give you my opinion. I have no more at present but remaine

Yo' assured freind to serve you
JOHN WEBB.

Aprill ye 16:
1655.

LETTER VI.

Dated May 31st, 1655, about six weeks after the last, and mostly concerned with directions to the masons. There is also some advice about the projection of the chimney-breast in the "great room," and about the purchase of pictures. Webb concludes by promising a visit if either Belvoir or his own occasions call him Lamport way. The Mr. Sergency mentioned at the beginning is no doubt the Thomas Sargenson who wrote to Sir Justinian for certain instructions on August 19th. 1655, and in asking for decisions conveyed advice. The instructions sought for related to the return front of Webb's block, at its right hand or southern end; a rough sketch of it is given and evidently no wing was then contemplated. His letter is dated from Coventry, yet the superscription says "Leave this with Mr. Thomas Hill near Harp and Ball below Charing Cross to be sent as aforesaid." Sargenson was apparently a contractor inasmuch as his enquiries refer both to mason's and carpenter's work. He appears to have been a man of good position, for he seals his letter with a coat of arms—a chevron between three dolphins embowed. There is no record of what the advice was which was approved by Webb in this letter of May 31st.

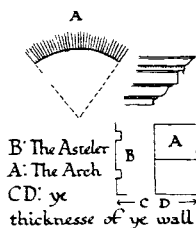
This

For the much Honored S^r Justinian Isham
K^t and Baronett at Lamport

Northamptonshire

S^r

In answer to yo^{rs} of the 28th instant, the advise wch Mr Sergency gives you is without peradventure the best & I would advise you to follow it, yet not with ye stones drawne archwise upon a straight line, but wrought to ye sixth part of a circle wch is called a scewne arch as in the margent. This should take ye springing from ye outmost bredth of ye windowes and bee wrought over ye upper member of yo^r cornice as this schitzo will direct. It must bee brought upp wholly in the thickenesse of ye wall yet so that on ye



outward part it may bee hidd by the Asteler, & on ye inside the plaistering will keepe it from being seene, as for ye buttment at ye Angles you need not feare, it is sufficient without dispute, yett in case you follow not this way but lay discharges of timber you lett those timbers be pitcht on every syde & at ye ends with pitch, and lett them also be layd in Lome whereby ye mortar may not corrode them, this is also a very good way but in no wise so permanent as the other. Your masons must bee sure to make your cornices lye at least as much in the thickenesse of the walls as they project outwards, ye more ye better and more perpetuall. Concerning ye chimney in ye great roome to have it after ye flemish manner carryed on

Cartooses, for that is it you meane. I noe way like for from those Cartooses upward there wilbe such a break into ye roome that will admitt no correspondency to ye rest, besides such chimneys are fare more subiect to smoake then any other. The thickenesse of ye wall is so sufficient that if you will it may come forth but 3 : or 4 : inches into ye roome [paper injured] betweene and if it come out 8 : or 10 : ynches at wch proportion if I forgett not it is drawne it wilbe much more graceful then when of ye least scantling. my design is after ye Italian manner. I am gladd you have the peece of Vandike it is a pretty thing though spoyled, and I would always advise you rather to buy principalls then Copyes, though they are somewhat deerer yet are they of farr more esteeme & hee that buys cann hardly bee a looser. Normandy glasse holds very deare at about 40^s the case, wee are likely to have peace with ffrance sodainly & then it wilbe cheaper. I shall very shortly upon my returne to Towne send you an example. I shalbe absent hence till Saterday senight, by y^e next returne after wch I shal send you a peece of ye said glasse, and if either Belvoir or my occasion els calls me your way, you shall not faile to bee visited by

S^r

yo^r assured freind to serve
you

JOHN WEBB

May ye 31st
1655

LETTER VII.

There is an interval of more than two years between the last letter and this, which is dated 11th June, 1657. The enlargement of the house was presumably approaching completion, and attention was now being given to its adjuncts, for this letter and the two which follow are largely concerned with a gateway. They also deal with a "depository," of which more presently.

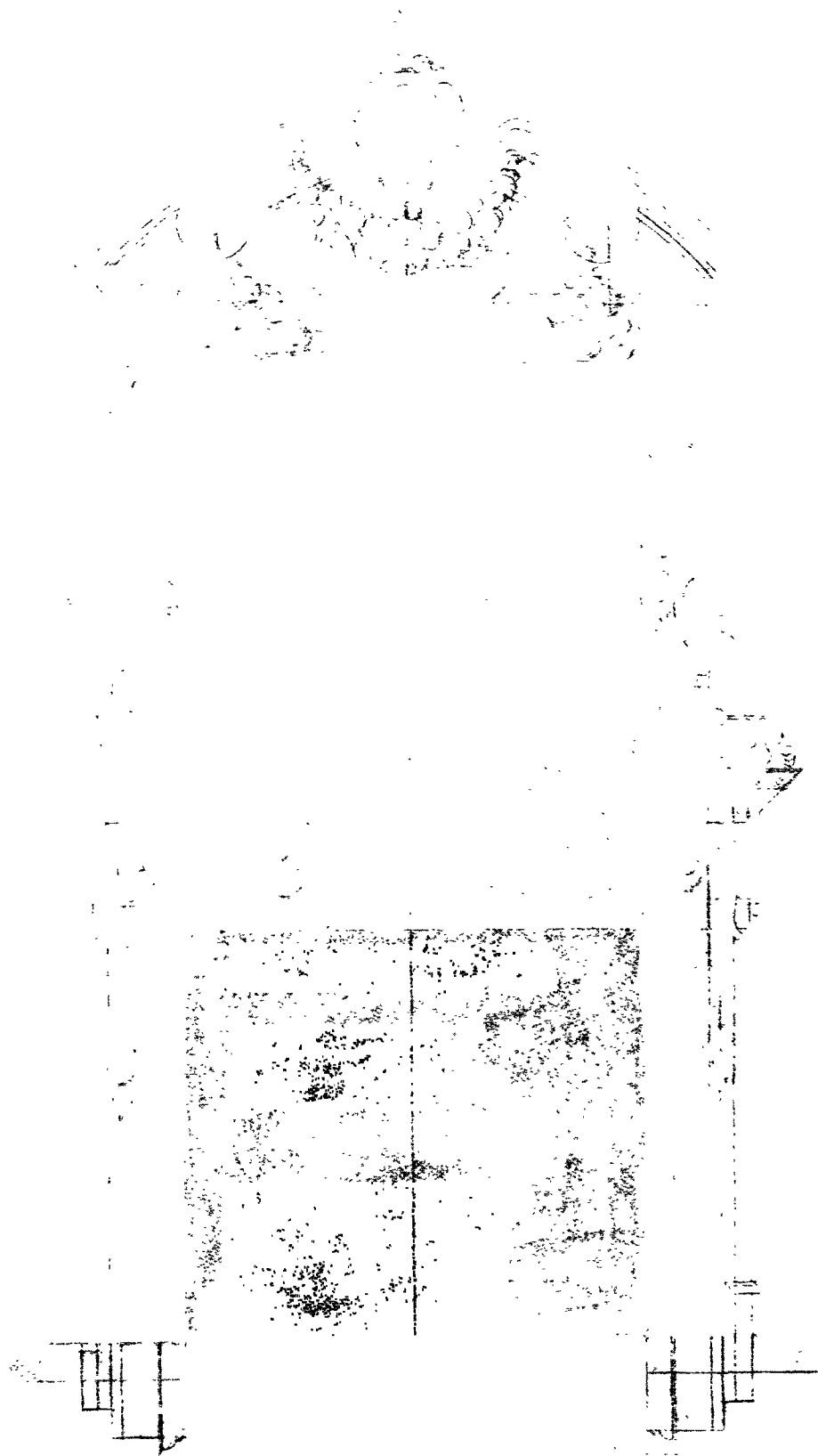


FIG. 13.—CHIMNEY-PIECE IN THE MUSIC ROOM

The "designe for yo^r gate" is shown on Fig. 15, and on it are marked the letters of reference in connection with the full size drawings of its mouldings. There is another and evidently earlier design for the same gate, on which are shown alternative finials on the top of the pillars, one being a swan (the crest of the Ishams) and the other a cartouche with strapwork. It is clear that Sir Justinian preferred his crest, for he has put an impression of it in sealing wax on the drawing as a guide, and in the subsequent drawing, that which is here illustrated, this impression has been faithfully copied. On the back of the earlier drawing are some sketches in pencil of an urn as finial, and also of the depository and its obelisk. The inference to be drawn from these sketches is that on one of his visits Webb and his client discussed the design for the gateway, and that Webb turned the drawing over in order to sketch an alternative finial. The conversation then turned on the depository, and Webb sketched his idea then and there on the same piece of paper.

After dealing with the gate this letter proceeds to the depository and its obelisk, which are illustrated in Figs. 4, 7. From the note beneath the design of the door (Fig. 7), which reads, "The dore leading into the chapell, in greater forme," it is to be inferred that the depository was to be attached to the church, for there is no chapel in the house, and that it was in fact a sort of mausoleum. In the sentence of the letter where Webb says "ffor to ascend by three steps into it from the channell I like well," presumably he wrote "channell" by error for "chapel." There is no record of the depository ever having been built, nor any reason to suppose that it was. With regard to the gate, the remaining letters imply that it was actually carried out, but there is no trace of it left, and it was not one of the two gateways shown on an old print as being close to the house and leading out of a large forecourt, now obliterated.

This

For his much Honored freind S^r

Justinian Isham K^t & Baronett

at Lamport

Northamptonshire

Honored S^r

I have sent you the Designe for yo^r gate with the moulds belonging to it countersigned with letters in the draught, and as I have ordered it there will not bee any one ioint scene thorough out ye whole worke thereof.

The Coping for your wall I cannot send you untill I have the iust thicknesse of yo^r wall. So also the moving dore of yo^r House cannot be designed untill I receive from you the iust heights & bredths of them: but the manner of ye moving dore for your gate I have drawne & sent also the mould thereof as you will perceave by the papers I have sent you likewise the designe for your depository, and round about the Obilisque have planed a stepp to kneel or sett on, and it may have also one round the sides of your wall, but then the passage wilbe somewhat narrow, the gray marble cannot bee wrought without ioynts lying plaine without mouldings, but the ioynts shalbe cast so conveniently both for banding the worke and order, that if they bee neatly rubd they will not bee unsightly, the vaulting of the coverture I would advise of brick, and the dore leading into it grated with iron as I have designed, whereby it will agree well with the rest of the worke. ffor to ascend by three stepps into it from the channell I like well also yo^r vault underneath, the windowes whereof may bee ordered as you write. The outside should be rustick as I have drawne it for so the Ancients used, but it may bee made plaine if you will. Betwixt yo^r & y^e of the Ascension mentioned by you wilbe this difference that is round within and octangular without, yo^r an octagon within & circular without. I shall desire to know how you like it, being it is rarely new and will take well. On the topp of the obelisque I place an Urne most proper for your intention. I have nothing else at present but subscribe

yo^r assured ffreind to serve
you

June ye 11th
1657.

JOHN WEBB

LETTER VIII.

Dated 22nd June, 1657. It deals with points in connection with the gate, arising during the carrying out of the work. These must have been raised in a letter from Sir Justinian, in which he also made some suggestions as to adding pilasters to the depository. Webb appears throughout



FIG. 14.—THE MUSIC ROOM AS NOW EXISTING.
From a photograph kindly lent by the proprietors of *Country Life*.

the correspondence to have been very accommodating in regard to his client's suggestions. He rarely vetoes them outright, but either hints at his own preference or leaves the questions for discussion at their next meeting. In this instance he contents himself with pointing out that the pilasters will add to the cost.

[Single sheet—no address.]

Honored Sr

The side of the Peers next the garden are to bee brought upp directly square as in the Draught, the outward part thereof consists of a pillar & a pillaster on each side thereof, the pillasters advance six inches (weh is halfe ye Diameter) from the naked of the wall, and the pillar is likewise to bee sett 6 : ynches also before them, as ye mason will easily finde by ye scale : And the peers on ye garden side are likewise to rise 6 yn. from ye naked of the wall on that syde. because you cann have no stepps lett the pillar have a plinth of stone under it 9 : inches high whereby from the ground to the underside of the Architrave wilbe 8 : fo—3 yn. and so much should the height of ye wall bee from the ground to ye topp of the coping, but if you thinke the wall will then bee too high, lett the topp of the coping runne levell with the upper rustick, I have made the mould for the coping of such height as it may answer justly to the height of the rustick for so it will gracefully die against it, or the space betwixt the sayd upper rustick and the Architrave as you shall determine your height of the wall If you shall make vo^r depository with pillasters it may bee made without ioynts being seen, but it wilbe more chargeable in respect of the ornaments of the pillers, but of this more may bee sayd when you resolve, in the meane time I rest

yo^r assured freind to serve you
JOHN WEBB.

June ye 22th 1657

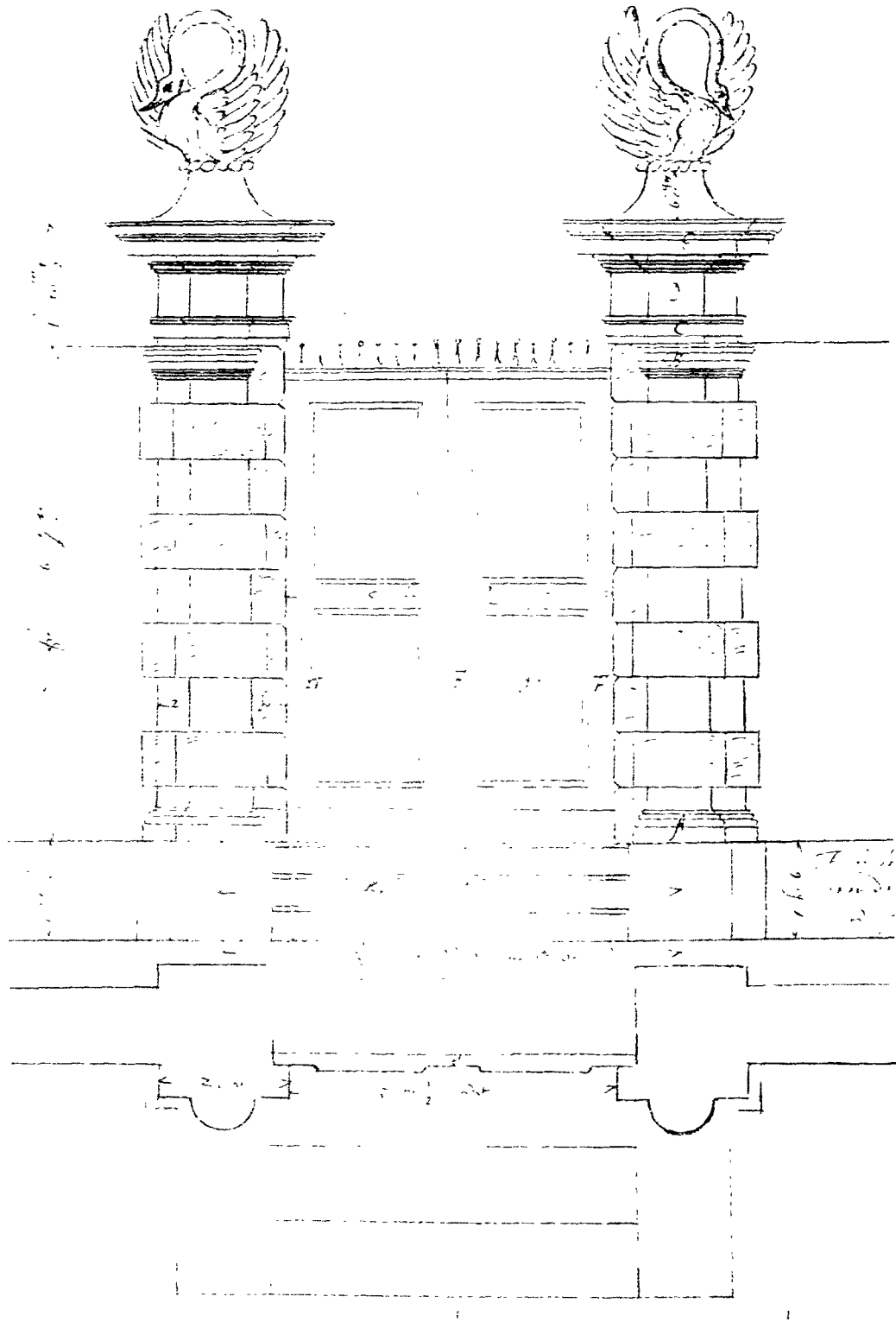


FIG. 15.—DESIGN FOR THE GATEWAY.

(The note, part of which appears near the right-hand bottom corner, reads "This height of 1 f. 6 yn may bee either more or lesse according as the height is betwixt the levell of the garden and the walke without. John Webb")

LETTER IX.

This is the last letter of the series, and is dated 27th June, 1657. It is chiefly concerned with the gate, but mentions the depository towards the end, as to which, he says, he has no time to answer Sir Justinian's particulars, but "when you goe about," he adds, he will be "very large therein." However large he was, it would seem that the idea of building the depository never came to fruition.

This

For his Honored freind S^r Justinian
Isham K^t & Baronett in Lamport
Northamptonshire

Lett this letter bee left with the Carrier that
goes by Lamport on Thursday, hee lies at
the Ramme in Smithfield.

Honored S^r

The inclosed you had received last weeke if the party you intrusted had come for them. The mouldings of the gate are lusty enough for their worke els you should have had other & for the gathering of some greene it is not amisse, it being a symptome of Antiquity yo^r chamferd rustick peers are so common that I would have you not lay out any charge thereon, & for the agreement with yo^r rustick Qoyns it is not materiale Diversity in rustick worke being most commendable.

Upon receipt of yo^r of ye 22th I have opened my answere to yo^r former because therein you say the thickesse of the wall may bee altered at pleasure so th^t whereas I had before reduced it to 2:fo: I have altered it to 18: yn whereby ye pitch of yo^r coping will fall the better.

I am now unexpectedly leaving London so th^t my time to answere your particulars about the Depository is cutt short. when you goe about I shalbe very large therein in ye interim you may sett downe what notes concerning it you please & I doubt not to satisfie you fully therein. You may be confident if any occasion brings me that way hee shall not faile to attend you, who is

yo^r assured freind to
serve you

JOHN WEBB.

June ye 27th 1657.

What happened after June, 1657, in connection with the work at Lamport there are no records to show. These nine letters, together with the drawings mentioned in them, are all that have been preserved. Both Sir Justinian and Webb lived on for another seventeen years, dying within a few months of each other. Webb on 30th October, 1674, at the age of 63, and Sir Justinian on 2nd March, 1674-5, at the age of 64. But the letters and drawings, neatly supplementing each other, throw a welcome light not only on Webb and his work, but on the methods by which an architectural practice was carried on in the middle of the 17th century.

CATALOGUE OF THE DRAWINGS BY JOHN WEBB PRESERVED AT LAMPORT HALL.

1. **1a.** Two sheets, formerly gummed to make one, showing half the elevation of the central projection of the west front, to a scale of 3-5th in. to the foot. No title nor writing.
On the back of **1a** is a pencil sketch for the quoins and "rustick," and also the upper part of two columns with a human figure indicated between them. These sketches are probably by Webb and the whole drawing is perhaps the "schitzo" mentioned in Letter I.
2. A careful drawing of the front, with its plan below. No title, but signed "John Webb." Scale, 5 feet to the inch. This is the design as carried out; but the basement windows are not shown. (Fig. 2.)
3. **3a, 3b.** Front elevation, side elevation, and plan of the suggested porch, on three small pieces of paper. The "profile of the Porch" is signed by Webb.
4. Another elevation of half the front, slightly different from the others, and to a smaller scale, 5 feet to 1½ inches. No writing, but the drawing is probably by Webb.
5. Full size profile of the mouldings below the windows of the ground floor, with numbers on them referring to drawing No. 7. Signed by Webb. On the back are further sketches for the quoins and "rustick." (Fig. 3.)
6. Architrave and frieze of the windows, full size, with reference numbers. Signed by Webb.
7. Key elevation of the lower part of the front, with numbers corresponding with those on 5 and 6.
8. Profile of consoles supporting the cornice of the windows, entitled "Cartoose for the windows at S^r Justinian Isham's. 1654. Lamport." Full size.
9. Front of the last, full size. Dated 1654 and signed by Webb.
10. Architrave and frieze of the main cornice, full size. Dated and signed by Webb.
11. The main cornice, full size. Dated 1654, and signed by Webb.
12. One of the balusters, full size. Dated and signed.

13. Mouldings above and below the balusters, full size. Dated and signed.
14. Drawing to show the treatment of the quoins and rustick, with a note in Webb's writing. This is the drawing referred to in Letter IV. No scale. (Fig. 9.)
15. A rough sketch—"rude trick"—of the (south) end, sent by Thomas Sargenson, asking for instructions as to its treatment in certain particulars. Dated 19th August, 1655. This drawing is interesting as showing that Webb's building only comprised the central portion of the present front. The total length of the end corresponds with the depth of the central block (shown in Fig. 3). There is no indication of a wing against this end.
- 16, 17, 18. The four sides of the great room, now called the music room, to a scale of 4 feet to 1½ inch: all signed by Webb. (Figs. 8, 10, 11, 12.)
19. The chimney-piece in the great room. (Fig. 13.)
- 20, 21, 22, 23. Mouldings of the chimney-piece, full size. All dated 1655 and signed. (Fig. 6.)
24. Drawing of a gateway "for St. Justinian Isham at Lamport." This appears to be a preliminary design with alternative finials on the piers. On the back are pencil sketches for the depository, etc. On the front an impression of a seal with the Isham crest.
25. Working drawing for the same gateway, with letters referring to the full size details. Signed by Webb. (Fig. 15.)
- 26, 27. Full size details of the last with reference letters. Both dated 1657 and signed.
28. A ten plate of the wall coping, in paper.
29. Plan of the "depository" mentioned in Webb's letters. Elevation of "the dore leading in to the chapel." No title, but signed by Webb. (Fig. 7.)
30. External elevation and section of the depository. Identified by references in the letters. No title, but signed by Webb. (Fig. 4.)

There are other drawings relating to the House, but they are mainly, if not entirely, by other hands than Webb's.

THE CAREER AND WORK OF AXEL HAIG, R.P.E.

[Axel Herman Haig, born at Katthamra, in the Island of Gotland, in 1835; long resident at "Grayshurst," Haslemere, Surrey; died at Southsea, 23rd August 1921. Laid to rest in Grayswood Parish Churchyard, near Haslemere. R.I.P.]

THE opportunity of contributing this brief appreciation of the life and work of Axel Haig to the pages of the R.I.B.A. JOURNAL is an honour which I recognise and willingly accept. It is a small tribute to his memory in acknowledgment of a great example of ability and thoroughness. I enjoyed his valued friendship during a lifetime, so to speak, our acquaintance commencing about fifty years ago, or perhaps a little after my stay at Westminster with Sir William Emerson, who had been a pupil of William Burges. Haig was not employed by Burges as an assistant till after he had been working for nine years in Scotland Yard under Ewan Christian. Since Haig went to live at Haslemere he travelled abroad frequently, and I mostly met him at social gatherings now and again in London, and we occasionally corresponded. Thus I became familiar with his work and charming personality, chiefly distinguished by singular modesty. Throughout our long acquaintance I found him a most lovable man, entirely free from egotism. On no instance that I recall did Haig indulge in the rather too common habit among people of artistic temperament, of decrying or lightly alluding to the work of one's fellow craftsmen. In writing this notice I am not unmindful that time is needed to form a correct judgment upon any man's relative value, but perhaps I may safely predict that his drawings, lithographs and etchings will hold their own in the future, outliving recurring changes of taste and surviving not a few passing fashions. Such a reputation is unlikely to prove ephemeral, being too firmly based on outstanding merit and dextrous skill. Haig made no claim to compete with painters, but his architectural draughtsmanship ranks without a doubt among the foremost of his time, whether abroad or at home, and in some respects his graphic capability re-

mains unique. No other British contemporary surpassed him in his particular province. Haig, always free from trickishness, was invariably exact, reliable and painstaking. Certainly his work was brilliant, marked by a true sense of colour. He recognised the relative values of light and shade, the importance of texture and the limitations of his medium. The brush, lithographic pen, needle or pencil were tastefully employed, whether expressing his conceptions or recording his impressions. His judgment was seldom at fault as to compositions in the mass or choice of the best points of view. Insisting on technical details in architectural subjects, he exhibited great breadth of handling. Haig also possessed the intuitive gift of being able to place accessory figures rightly, and what is more, the people introduced into his pictures are always exquisitely drawn, true to scale, helpful to the perspective and fittingly costumed. No startling stage effects occur, nor prancing horses and other disturbing "movies." The accessories in Haig's perspectives are subordinated with due regard to proper relations. His scholarly knowledge of architecture is undoubted, though he was not given to punctilious lecturing or self-assertion. The essentials of style are self-evident in his faithful portraits of buildings, often showing exceedingly elaborate pieces of craftsmanship without employing a needless line. Haig's sketches of sculpture and statuary leave nothing to be desired. He was no postulate impressionist, and his productions are enjoyable to live with, which cannot be claimed for the vagaries of the Cubists and Neo-Vorticists of today. Haig's methods were entirely his own, direct in aim, and simply natural in execution. His landscapes and trees are first rate, the result of study and love of the beautiful; consequently his work is stimulating.

On leaving school, Axel Haig served in the Government Dockyard at Karlskrona, studying naval architecture. From thence he obtained a situation at Port Glasgow on the Clyde. Here he diversified his boat-building engagements by erecting a house for the head of his firm, Mr. Lawrence Hill, who proved to be an enduring patron and friend. The great ambition of Haig's youth was subsequently realised by obtaining work in London, where he fortunately became associated with some of the leading spirits of the Victorian Gothic Revival. This congenial enterprise afforded precisely the opportunity Haig most desired. By sheer ability he soon became able to prosper his masters' projects. In his own time Haig undertook perspective work for several friends and well-known architects, such as Rowand Anderson, John Burnet, William Burges, E. W. Godwin, and later on for Sir William Emerson. He also contributed drawings to a book of *Examples of Municipal Commercial and Street Architecture of France and Italy*, by Rowand Anderson, who sent me a signed copy in 1878. This work was dedicated to Sir Gilbert Scott, but it is undated. Among Haig's delightful lithographs done about that date, I possess a pretty series of prints showing Scottish buildings and Peel-towered houses as well as foreign sketches, among them being the Church at Gothem, Sweden; the old Palace, Malines; Church of St. Etienne, Caen; Gabled Houses, Lisieux; Court-yard, Bologna; also many more studies from Italy, Spain and Germany.

Since those joyous sketching days, before it became a sin to make what are now slightly termed "Topographical drawings," our British architectural outlook has altered very much. We have passed "from Burges to the Baroque," or, in other words, Late French Renaissance examples are now exotically adapted and copied. Our taste has outgrown the nineteenth-century dryadust importation of Early French Gothic. G. E. Street's *Brick and Marble Architecture of Italy* is quite forgotten, and his St. James-the-Less Memorial Church at Pimlico is seldom mentioned. Neo-Classic, combined with American steel-framed construction, has arrived to stay with all its inconsistencies. Masses of masonry neatly rusticated and worked by machinery at the quarry are employed as a mural veneer set up *in situ* to hide the skeletons of steel which independently carry our structural loads. Pugin's insistence on "truth" and the mediæval ideals of balance of solids and voids, arches and poise have gone to limbo in company with modern styles like Bassett Keeling's restless folly, "The Strand Music Hall," long ago demolished.

In all likelihood few architectural students of the present generation ever learn about Haig's drawings of architectural sculpture, but, judging by results, pupils appear to be taught the grammar of meaningless swags, urns for skylines, and how to cap piers with vases. The decadence of the "Late and Flat" obtains some of its interest by the addition of fanciful cartouches often without a considered rhyme or

reason. The two Strongs, Caius Cibber and Francis Bird, invented things of this sort, and flourished by applying them to the buildings of Sir Christopher Wren. A familiar classicist, inclined to bewail the shortcomings of the English Renaissance, somewhere suggested that the architect of St. Paul's "had a disastrous habit of taking detail on trust." Be that as it may, these old Stuart carvers continue to furnish most of the patterns employed by our pioneers, which leads to their stock-in-trade being repeated *ad infinitum*. Surely our "intellectual inheritance," of which we hear so much, might act as an incentive to better things than the Baroque.

In his international and capital book on *Pen Drawing and Pen Draughtsmanship*, Mr. Joseph Pennell printed some quotations from my paper on *Architectural Drawing*, read before the R.I.B.A. in 1885. Naturally, I appreciated his generous approval, but none the less it surprised me that he failed to notice Haig's pen drawings. On the occasion of my lecture three of his pictures were included in the Institute's wonderful loan collection I was enabled to exhibit at Conduit Street. I felt the same regret on consulting my copy of Sir Reginald Blomfield's scholarly textbook on *Architectural Drawing and Draughtsmen*, because he also omits all reference to Haig, although two of Eden Nesfield's "Topographical" sketches of French Gothic churches are reproduced. In his preface the author directs attention to my aforesaid paper with kind commendation.

Foremost among the most valued volumes in my library is the handsome quarto published by the Fine Art Society in 1905, written by Mr. E. A. Armstrong, entitled *Axel Herman Haig and his Work*. This book contains a considerable number of delightful plates from pencil drawings, water-colours and etchings. Those who refer to that well-illustrated biography will realise that Haig's ability is not herein over-estimated.

I treasure most 'midst my pictures the proofs given me by Sir Rowand Anderson of two unpublished etchings intended by Haig for this distinguished Edinburgh architect's projected work on *Scottish Architecture*. One of the pair represents the west door of the Chapel Royal, Holyrood, and the other (since published) shows the door to the Cloisters, Jedburgh Abbey. About 200 etchings in all, large or small, were completed by Haig, including a few ideal compositions of elegant loveliness, and some splendidly big subjects from Spain and Cairo, as well as from Italy, France and Germany. He made the three water-colour Royal Academy drawings (now in the Chapter's care at St. Paul's) which William Burges exhibited in 1875, illustrating his scheme for the decoration of the Metropolitan Cathedral. As an architect, besides designing his own house erected at Haslemere, Axel Haig restored and added to the large country church at Floda in Södermannland, and did similar ecclesiastical work at Dalham and Ardré, both in the Island of Gothland. Wisby Cathedral he likewise renovated externally, in which work he was associated with Mr.

E. W. Dodgshun of Leeds. Between 1870 and 1894 Haig exhibited 26 works at the Royal Academy, but he was more often represented in other London and Colonial galleries, also in Paris, Berlin, Munich, and most European capitals. He was a member of the Royal Society of Painter-Etchers and of the Royal Swedish Academy. He won several medals, such as Gold Medal, Paris Salon, 1882; Medal and first order of Merit, Adelaide, 1887; 1st Class Gold Medal, Paris, International, 1889; Gold Medal, Munich, 1890; Diploma, Chicago, 1891; Diploma, Berlin, 1891; and Gold Medal, International, 1900. Haig bore distinguished orders given him by the King and Queen of Sweden.

MAURICE B. ADAMS [F.].

Bedford Park, W.4, Sept. 1921.

CORRESPONDENCE.

The Government's Future Housing Policy.

15 New Bridge Street, Ludgate Circus, E.C.4 :

30 Aug. 1921

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Referring to Mr. James Ransome's letter dated 26th July in the JOURNAL of 30th July, is it not very desirable that the condemnation of the Government Housing Scheme by the Council and by individual architects should be supplemented by some alternative scheme under which they could guarantee that houses would be forthcoming? Without such an alternative destructive criticism is of no avail.

It has been reiterated *ad nauseam* that the building trade left to itself could have provided all the houses required, but I have never come across any explanation as to how this could have been done, nor any answers to such questions as the following, which arise in connection with the suggestion.

1. Could the speculating builder have restarted operations after the war, obtaining loans on houses before completion and disposing of them at a profit on the old lines?

2. Were (or are) architects prepared with equanimity to see still more rows of the existing pre-war type of houses springing up broadcast, with back extensions, bay windows and other "ornamental" features; have they recanted their condemnation of these abominations, or do they believe that their old enemy would seek the assistance of architects in his operations?

3. If the speculating builder above referred to is eliminated, could reputable contractors, acting under architects, produce the houses required on a commercial basis?

4. If the answer to question 1 or 3 is in the affirmative, how can the current price of houses be accounted for except on the ground of gross profiteering (after making every allowance for red-tape obstacles, etc.)?

5. Was it not generally acknowledged until comparatively recently that the Government was forced to step in because of the impossibility of obtaining houses in sufficient numbers by private enterprise and

that a similar difficulty existed almost throughout the civilised world?

Whether the Government scheme was well devised is quite another matter; but now, while it is in abeyance, is the time for wiser heads to formulate a better one.—Yours, etc.,

ALEC P. DURLACHER [F.].

P.S.—Since writing the above I have read Mr. E. G. Holtom's able letter in the August issue of the JOURNAL, in which he points out what are probably the fundamental difficulties. But if the provision of sufficient houses must wait for a "drastic reform of our whole system of local taxation," it is a bad look-out for the present generation.

Mr. Frank Hunt also contributes to the *Journal of the Surveyors' Institution* for September an illuminating article on the Rent Restriction Act, in which again there appears little hope of any early solution of the difficulties with which we are confronted.

Holt, Norfolk, 5 Sept. 1921.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—I have just received a copy of the Ministry of Health Departmental Committee's Report on "The High Cost of Building Working-Class Dwellings." There appears to be very little fresh information of importance, and no practical suggestions for reviving the building industry, since the Tudor Walters Committee reported in 1918.

Some of the figures given are instructive—"It appears that the *decreases* in the number of skilled tradesmen available in England and Wales were:—"

Years 1901-1911	..	..	73,290
.. 1911-1914 (July)	..	..	223,421
.. 1914-1920 (Jan.)	..	..	98,706
			395,417

The total employed in 1901 is given as 720,229, which brings the figure for January 1920 to 324,812.

In July 1920 the total of skilled men employed had risen to 365,596 under the pressure of the Government Housing Scheme.

It will be seen that the decrease between 1911 and July 1914 was $2\frac{1}{4}$ times that caused in 5 years of war conditions.

Unless a real housing policy, based on sound legislation and reformed local taxation is forthcoming, architects will become extinct with the rest of the building industry, in which event the burning, and apparently more important, questions of unification, registration, housing scheme fees, and assistants' minimum wages will solve themselves on strictly economic lines.—Yours faithfully,

E. G. HOLTOM [F.].

Why not Dominion Branches of the Institute?

Hartley, Cranbrook: Sept. 1921.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—You were kind enough last month to publish a letter from me upon the subject of registration, in which I have been intimately concerned for close upon forty years—ever since February 1884, in

fact, when a letter of mine which appeared in the *Building News* gave it, as a main principle of policy, to the Society of Architects, which was then in course of formation. This month I again seek courtesy from you ; and the subject is one of, if it be possible, even wider scope and greater importance to the development of architectural organisation—and, through that, of architecture itself—throughout the Empire.

In the title of the Institute the word "British" occurs. This word has now a very wide, imperial meaning, but in practice, amongst architects at least, it is still confined to the Empire's hub, these home islands. We certainly have Fellows and Associates scattered over the world : we have most of the leading architectural bodies of the Dominions in what is called "Alliance" : but our policy is local and restricted, our governing body is elected by those who are within a day's post of headquarters, and our members, of all practising grades at least, are enrolled upon qualifications based upon an insular standard.

This has been quite natural, and nobody is to blame ; but, Sir, has not the time now arrived for a broader outlook to prevail ? Such a time has been foreseen. I should like to draw attention to Clause 34 of the Charter of 1887 and its last sub-section :—

Subject to the provisions of this Our Charter Bye-laws shall define regulate and prescribe

(h) The relations of the Royal Institute to such branches thereof as may be established within the United Kingdom or any Colony or Dependency of the United Kingdom. . . .

The establishment of both near and distant Branches was thus clearly indicated and provided for. None have yet been formed, nor even have the necessary bye-laws been drawn up : and perhaps this is to the good. They would quite possibly have been devised upon the old idea of predominance and subordination, and not upon that of equality of brotherhood which now prevails in greater matters. I mean that the various Dominion Branches would, in order to meet modern and future conditions, have to be independent bodies, both theoretically and in fact : working under the same Charter, to be sure, but ruled by their own officers, working under bye-laws of their own devising, and electing their own members of all grades, according to their own standards. They would owe no prescribed allegiance nor monetary support to the parent body, but upon all important matters of general concern their Councils would consult, through their Presidents, as might be necessary by letter or otherwise : or even by personal contact, on the Imperial model, as this is rendered more easy in course of time.

It may be that some such meeting, convened by our President, would be the best of all possible initiatory steps, but the difficulties are obvious, and the problem is to some extent a different one in each Dominion. Canada, for instance, already has a Royal Architectural Institute, established both under Charter and under a special Act of the Dominion Parliament : while India possesses as yet no organised body of

architects whatever outside the Government service ; and between these extremes there are several variations. To meet such diverse conditions the bye-laws for the establishment of Branches would have to be most generously drawn, even possibly to the point of vagueness.

Before getting so far, however, the localities concerned should be consulted ; and if a meeting in London be impossible some other means must be found. Members who are resident in the Dominions could help greatly here, both by general letters upon the value of branch establishments, and by suggestions as to methods of inter-consultation. Or how would it be if the President, or some open-minded delegate on his behalf, were to visit the Dominions, and probe local opinion in each ? It would be costly, but worth while. It would appeal to the imagination, not of the members of our profession alone but to the whole world, and give an untellable stimulus to architectural development. At least I think so, and I have reason to believe that others are in agreement with me.—Yours faithfully,

G. A. T. MIDDLETON [A.].

The R.I.B.A. Scale of Charges: Judge's Dictum.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—Having been in the Court during the hearing of the case *Smith v. Wood and Rozelaar*, it should, I think, be noted that the dictum of the learned Judge, as quoted in the JOURNAL of 27th August last, was not made in the course of delivering judgment, but earlier in the proceedings.

Of more importance to architects, however, is Mr. Justice Greer's statement made in his judgment regarding professional charges. He said : "If it had become necessary to decide the question of amount, I should have said, in this case, having regard to the fact that the change in the scale (of charges) has been recently made, that the charge that any one would be bound to anticipate he would have to pay, if he instructed an architect, would be the old charge, and not the new charge."

This is a little disconcerting, since the only scale issued by the Institute is the "New Scale," and as such, it is the duty of every member to support it. In view, therefore, of the Judge's opinion, it would appear desirable to settle with clients, at an early stage, the terms of agreement. This course would, I am sure, prevent many difficulties from arising and would go far towards familiarising the public with the "New Scale."—Yours faithfully,

HENRY V. ASHLEY [F.].

Books Received.

Society for the Protection of Ancient Buildings—An Old Cottage Saved : How Derehet Cottages at Drinkstone, in Suffolk, were brought into use again and what the work cost. 80 2s. 6d. net. (A. R. Powys, Secretary S.P.A.B., 29, Buckingham Street, Adelphi, W.C.)
The Modern Painter and Decorator. A Practical Treatise on House, Church, Theatre and Public Buildings Painting and Decorating. By Arthur Seymour Jennings and Guy Cadogan Rothwell. With 96 full-page plates in black and white, and 12 in colour. 3 vols. 22s. 6d. per vol. (Caxton Publishing Co., Ltd., Clun House, Surrey Street.)

THE HORSE GUARDS' PARADE IMPROVEMENT.

The plans prepared by H.M. Office of Works for the above improvement have recently been publicly exhibited, and the accompanying illustration appeared in the *Architects' Journal* of August 3rd, 1921.

It will be seen that the proposal involves the squaring up of the western side of the Horse Guards' Parade in connection with the new Guards' Memorial, which is to be placed in a commanding position axial with the Horse Guards Building. (What a fine site this would have been for the Cenotaph!)

The scheme also provides for the re-alignment of the eastern boundary of St. James's Park and of the public road between the Mall and Birdcage Walk. New grass plots are to be constructed in front of the India Office and Foreign Office and on the south-west corner of the Horse Guards Parade.

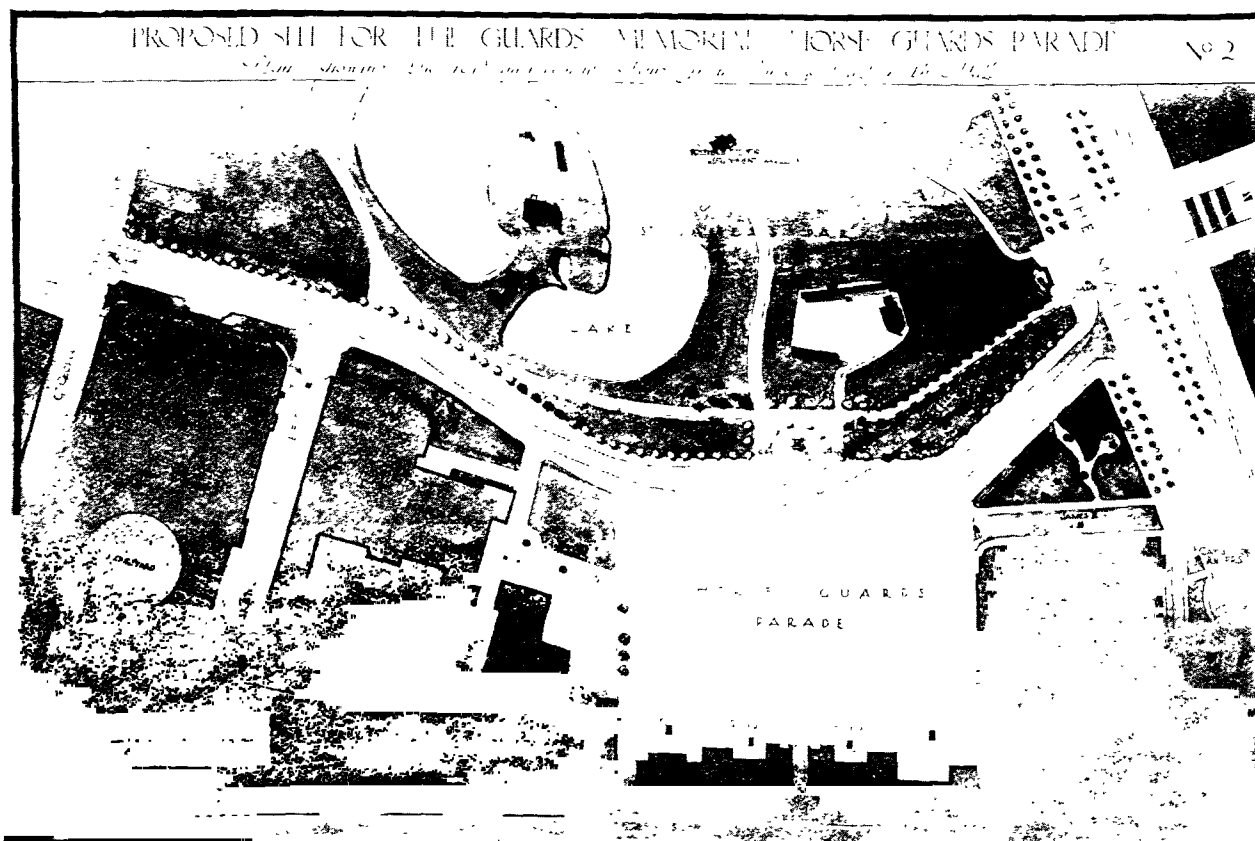
The two roads at present converging towards the Duke of York's steps are to be replaced by one road directed on the column itself. The present footpath will be retained, making a pleasant walk through the

park, instead of along the road, and a certain amount of land, about half an acre in all, will be thrown into St. James's Park, more than compensating for the land taken into the new roadway opposite the Foreign Office. Looking southward, the dome of the new Westminster Central Hall will form a satisfactory termination of the vista.

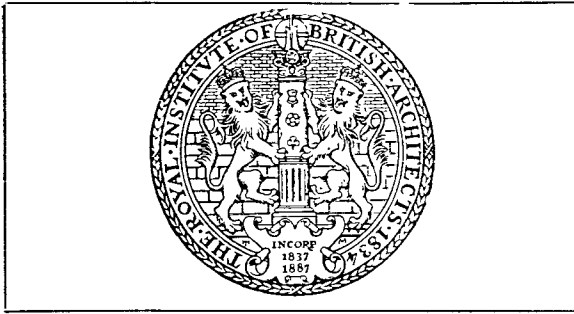
Generally speaking, the scheme is a good one, provided it is carried out with a sympathetic eye to the preservation of existing trees where possible, and with not too parsimonious an outlook on the part of the Treasury. It is all to the good that the Government, while providing work for unemployed labour, should also be able to improve the general appearance of London.

There is room for many such improvements in our public places, and every scheme of this nature indicates the paramount need for a well-considered plan for the future development of London.

W. R. DAVIDGE.



In courtesy of the Editor of the ARCHITECTS' JOURNAL



9 CONDUIT STREET, REGENT STREET, W., 24th Sept. 1921.

CHRONICLE.

The Retirement of Mr. G. Northover.

If there are members of the Institute to whom the personality of Mr. Northover is unknown, this concealment is due to Mr. Northover himself. His work, if sometimes unrecognised and generally unacknowledged, is known to all. During the war, in the absence on service of Mr. MacAlister, there fell upon Mr. Northover practically the entire burden of the Secretaryship in addition to his normal duties which, to express them at their minimum, comprised the whole editorial work of the JOURNAL. It will be seen, therefore, that Mr. Northover has passed a very busy life during his twenty-eight years' service of the Institute, the fulness of which has only been varied by periods of additional pressure. He should constantly be one of our best-known and most conspicuous personalities, but that a modesty which is not the least of his good qualities has always thrown a veil over his energies so that to many among us his work has seemed almost secret in its quiet force.

But to me, at all events, this secret has been an open one. I can well remember the day—now a rather distant day—on which our friend was introduced to me as a new element in the little household at No. 9, and from that day to this our acquaintance with one another has been one of untroubled pleasure as far as I am concerned, but on his side of frequent forbearance.

Mr. Northover is leaving us to enjoy a rest which he has very fully earned and to spend a leisure, which I hope will be a long one, in pursuits which his abilities will enable him to appreciate. We shall say good-bye to him with the regret which always accompanies the severance of friends and with the happiness of an untarnished retrospect.

Our friend's work has been no mere task of mechanical procedure; the Institute, I know, owes much to his sound literary judgment and to the unobtrusive exercise of a knowledge and taste which we have been ungratefully willing to take for granted. He can look back upon duties done not only honestly but adroitly.

I am aware that as an editor he has for a multitude of years dealt over-indulgently with my own prose; and it is a kind of comfort to me to think that I have at last produced something which, if he had his own

modest way, he would undoubtedly exclude from publication in the JOURNAL.

My readers will, I am sure, oblige me by treating these lines not as a formal statement by the President of the Institute, but as the personal proposal of a vote of thanks to which they will accord their votes with ungrudging, if silent, acclamation.

PAUL WATERHOUSE.

In thanking the President for his graceful and exceedingly gracious communication, the subject of it may be permitted to recall that his advent at the Institute in July '93 preceded by a few months the birth of the present JOURNAL, now completing its twenty-eighth annual volume. It had been the custom for several years to record the Institute's transactions in two different publications—the *Journal of Proceedings* (fortnightly) and the *Transactions* (annually). Papers read at Sessional Meetings were printed in the *Journal of Proceedings* in *précis* form only, with full reports of the discussions. Then, months later, the operation was reversed, Papers being printed in full with only a *précis* of the discussions. Thus, Papers and discussions were printed twice over, once in an abridged form which was practically valueless for reference; and the full Papers and the discussions emanating from them were respectively printed in separate volumes and at different times—a system confusing, inconvenient, costly, and perhaps a little ridiculous. In 1893 a suggestion of the then President, Mr. Macvicar Anderson, materialised and the two publications were amalgamated. The present writer, then in his thirty-ninth year and long conversant with editorial work and with the technicalities of printing and publishing, was engaged as "Sub-Editor and Publications Clerk," the Editor being the then Secretary, the late Mr. Wm. H. White. During Mr. Locke's Secretaryship the Sub-Editor was given the title "Assistant Editor," and in the early days of the present Secretary was appointed Editor, "under the direction of the Secretary," a qualification the prudence of which none would admit more readily than the Editor himself. Any who imagine that the functionary who has borne the above titles must have found time hang heavy on his hands are free to inspect the specification of the duties of his position in his contract of engagement, supplemented by the list of "extras" since taken over. It has been his good fortune never to miss a meeting of the Institute nor to be absent from work a single day, saving the regulation holidays, during his twenty-eight years' service, illnesses that might have necessitated absence having considerably confined their attacks to the holiday weeks. It is of interest to mention that since 1893 the membership of the Institute has grown from 1,500 to 4,600, and the circulation of the JOURNAL from 1,600 copies to over 5,000. A periodical run on voluntary contributions is not without its inconveniences for the Editor. Contributions often fail him, but, whatever befall, his pages have to be filled by a fixed

hour on a fixed day, unless the whole machinery of the printing office is to be thrown out of gear. (Only members who are Editors of the professional papers will perhaps appreciate this.) The present Editor's necessities in this respect have led to the discovery of much literary talent among the members of the Institute who have good-naturedly come to his aid and placed their knowledge and skill at his disposal. Apart from the Institute's own Sessional Papers, many valuable contributions to architectural literature in recent years have been in the form of Papers read under the auspices of the Allied Societies, and most of the best of these the Editor has been at pains to secure for the Institute JOURNAL. Some idea of the estimation in which the present JOURNAL and its forerunners are held outside the Institute may be gathered from the tribute paid to them by so competent a critic as Mr. Edward Smith, Librarian of the Avery Library, Columbia University. Writing in 1914, he says:—

The oldest of the architectural periodicals, and the master journal of the profession, is the series published by the Royal Institute of British Architects, which began under the title *TRANSACTIONS* with the Session 1835. . . . The *Journal of Proceedings* was published parallel with the *Transactions* until 1893, when the sets were merged under the title *JOURNAL OF THE R.I.B.A.* If any question arises in the field of one of the broadest of human professions, which is especially speculative or recondite, the inquirer is more likely to discover the answer in the *JOURNAL* of the R.I.B.A. than in any other book. The many searches which the librarian makes in this beautiful set are full of refreshment and interest.*

It is a very great honour to have served a body possessing the proud traditions of the R.I.B.A., to have come into contact with the distinguished men of one's own generation whose genius has brought lustre to their profession, and to have followed the career and marked the progress of their brilliant juniors, with whom the future rests. The writer leaves the Institute with mixed feelings. He confesses to a sense of great relief at the prospect of laying down a burden that his strength has become unequal to; but the severance of a tie which has brought him into association with men it has been a pleasure and an honour to have known fills him with sorrowful regret.

Of Mr. Waterhouse's invariable kindness and consideration—rendered sometimes in the welcome form of a delightful contribution to the JOURNAL—he has always been deeply sensible. For his latest contribution as President the writer thanks him more than he can express—from such a distinguished source it conveys a mark of distinction which he finds peculiarly gratifying and values very highly indeed. He regrets extremely that he should have finished his course at the Institute at the moment of Mr. Waterhouse's accession to the Chair. It would have been a privilege and a very interesting experience to serve under his Presidentship and to observe and mark and chronicle the affairs of the Institute during the present eventful stage of its history.

G. NORTHOVER.

Ancient Monuments Protection.

The Report* has been published of the Ancient Monuments Advisory Committee which was appointed by the Office of Works in July last year to advise on the question of amending and strengthening the existing Ancient Monuments Act, and to consider whether the powers conferred by Parliament should be widened, so as to include advisory powers over Ecclesiastical and Secular Buildings which are still in use and occupation. The Committee consisted of Lord Beauchamp (Chairman), Lord Ferrers, Bishop Browne, Sir Martin Conway, the Hon. Cuthbert James, M.P., Sir Lionel Earle, Sir Hercules Read and Mr. C. R. Peers.

The Committee in Part I. of the Report, dealing with the position of the State with regard to ancient monuments, state that the existence of the Acts of 1900 and 1913 is in itself a recognition of the principle that the nation has an interest in Ancient Monuments apart from, and in some respects superior to, the interests of their legal owners. No one could contemplate with equanimity any alteration or addition which would tend to destroy the artistic features of any of our great cathedrals or historical inhabited houses, yet the owners of these national treasures have apparently full power, legally, to make any alterations, additions, or demolitions that they please. Bearing in mind the unfortunate so-called "restorations" which have, owing to ignorance, destroyed the unique character of some of these buildings, the Committee think that the time has come when the Nation, guided by the best opinion available, should take steps to ensure that these treasures shall, as far as is possible, be handed down to posterity intact.

Part II. compares the protective measures adopted by foreign countries with those in force in Great Britain, particulars being given of legislation in Austria, Belgium, Denmark, France, Germany, Greece, Hungary, Italy, and Sweden. It appears that while the definition of a monument is everywhere much the same, a distinction is made in practice between monuments in private ownership and those belonging to public or corporate bodies. The British distinction between monuments in use and those no longer used is not recognised, and the Committee express the opinion that on logical and practical grounds the advantage is with the Continental conception. Other provisions not found in British law are (1) Control of movable objects, (2) Preservation of scenery where it affects the amenities of a monument, (3) Financial help to private owners for the preservation of monuments in their possession, (4) Compensation.

Part III. deals with the amendment of the existing Act, the principal amendments suggested by the Committee dealing with (1) Assistance to owners; (2) An extension of the powers of the Commissioners of Works; (a) where they are guardians of a monument, (b) under Preservation Orders; (3) Compensation; (4) Ancient Monuments Boards. With regard to the scheduling of monuments under Section 12, the Committee note that the Act, while insisting on the obligations of owners of monuments, does little to encourage them. It would be to the national advantage that not only advice, but actual assistance in the cost of repairs, should be forthcoming, as in France, from public funds. The State should agree to advance money for repairs at a low interest, or none, repayable in twenty years, and a certain proportion of the necessary expenditure might be borne by public funds. The definition of the power of the Commissioners under a deed of guardianship needs amendment. As it now stands, there is nothing to prevent an owner disfiguring a monument under State guardianship by incongruous additions, so long as these do not actually damage the fabric. The part of the Act which deals with Preservation Orders

* "The Henry O. Avery Library," *JOURNAL*, 13 June 1914, p. 568.

* To be obtained at H.M. Stationery Office, price 9d.

has proved to be practically unworkable. The intention of an owner to carry out work which would damage a monument being known, or the dangerous condition of the monument through neglect being established, the period of a month required by Section 12 of the Act for notice in the case of a scheduled monument should be utilised for the consideration by the constituted authority of the need for a Preservation Order. The owner would be heard and a decision made. If an Order should be considered necessary it would take effect at the expiration of the month. Compensation would then be assessed by whatever authority the State should direct. Compensation might be direct or indirect. In assessing direct compensation regard should be had to the fact that ownership of a monument of national importance implies duties as well as rights. The Committee suggest that compensation in certain specific instances might be paid in the form of terminable annuities over a period of, say, 20 or 25 years—thus posterity would pay a share for the direct advantage it would derive from the preservation of monuments of historic and artistic interest. As an example of indirect compensation, if the Act be extended to inhabited houses the owner's freedom of usage and amenities may be limited. Part of the house may become little more than a museum. Rooms may be maintained in an unusable condition as examples of bygone social manners or as things of beauty. Such limitations should be taken into account in assessing the value of the house for rating, taxation, and death duties. Such charges should be levied only on such parts of the house as are actually used from day to day for purposes of modern life. Regard should also be had to the fact that the maintenance of the ancient arrangements of many old houses, highly important for historical reasons, involves present-day inhabitants in much inconvenience and consequent expense which could be avoided by making structural changes injurious to the building as an historical monument. Such inconvenience should be taken into account in valuations. The Committee pay tribute to the value of the work of the Ancient Monuments Boards as constituted under the Act of 1913. They suggest that the Boards should be maintained, and that in addition District Boards should be appointed on which should sit the best local-antiquaries and architects. Four such Boards might be conveniently appointed for England with their meeting-places at York, Birmingham, Bristol, and London.

In Part IV, the advisability of extending the scope of the Act to include Ecclesiastical and Secular Buildings is considered. Reference is made to the report published in 1914 of a Committee appointed by the Archbishops to consider the question of Parochial Churches. They recommended that in each diocese an honorary Advisory Board should be appointed by the Bishop, to which the Chancellor might apply for advice when considering applications for faculties. Such Advisory bodies have been, or are being formed, now that the pressure due to the War is relieved, and the Committee express the hope that they will be appointed in every diocese without delay. They should be representative of the best opinion in matters of archaeological, historical, and artistic interest, and their members should have a definite status as assessors with the Chancellors on all such matters. The Committee expresses anxiety about the possibility of loss of chattels which are not technically "ornaments" or "furniture" and therefore not legally protected. Old helmets and other pieces of armour, of which some have historical associations, some artistic beauty, all deserve to be carefully scheduled, not only in the parish records, but also in the Central records. Though all the Parish Churches enjoy legal protection under the Faculty system, Cathedral Churches are without such protection. These are under the sole control of the Dean and Chapter, who usually appoint an architect to be their official adviser. The Committee think that the grave danger of unreservedly placing themselves in the hands of a single adviser would be met if, in each Province, the Church authorities appointed a central body parallel in importance and in personal calibre to the

Ancient Monuments Boards. Should no satisfactory scheme for the legal protection of Cathedral Churches be brought into operation by the Church authorities, the Committee recommend that provision be made for such protection under the Ancient Monuments Act.

The Committee are of opinion that the nation is not justified in neglecting to devise some scheme for the protection of secular buildings in use, seeing that they include many magnificent and historical specimens of our national monuments. State action should take the direction of encouragement and assistance. It is impossible to expect that all historical and ancient buildings can be permanently retained: many towns, however, find their ancient houses a valuable asset from the number of visitors they attract, and in such cases local and national interests are closely connected. Old country-houses and manor-houses should be included in any scheme of protection. Nor must the smaller buildings be overlooked. Country villages abound in examples which are a national asset of high value. The ancient colleges, grammar schools, almshouses, and hospitals are often buildings of high architectural merit in addition to their archaeological value and should receive full consideration from the State. The Committee recommend that the scope of the existing Act be extended to include buildings actually in use, subject to the payment of compensation to owners.

In Part V, the Committee refer to the Commission of Fine Arts which has been established in the United States as having proved of great value to the American Government and people. They think that if some such body were formed in this country, it could advise not only on matters relating to Ancient Monuments, but on all questions of taste which have now to be dealt with by Ministers of the Crown. The Committee's deliberations have led them to the conclusion that the appointment of a Commission of Fine Arts might be the best solution of the difficulties which face those who are charged with the administration of the Act.

Royal Commission on the Government of London.

The appointment of a Royal Commission on the Local Government of Greater London is announced, the terms of reference being "To inquire and report what, if any, alterations are needed in the local government of the administrative County of London and the surrounding districts, with a view to securing greater efficiency and economy in the administration of local government services and to reduce any inequalities which may exist in the distribution of local burdens as between different parts of the whole area."

Architects and the Public.

The Committee on Public Information of the Minnesota Chapter of the American Institute of Architects have drawn up the following circular for the general information of the public:—

THE SELECTION OF THE ARCHITECT.

Those who have never employed an architect are apt to be at a loss regarding the method of procedure. Many do not realise that architecture is a profession and that its practice calls for men of the highest integrity and business capacity—men who command confidence as advisers and who can properly assume the responsibility inherent in the practice of a profession.

The following is a brief outline of the more important factors of building operations:—

FIRST:

The client must first of all assure himself of the character of the man who is to be the architect. Obtain this information as you would in selecting a lawyer or physician.

Ask those for whom he has rendered service : inquire as to the class or kind of work he is most familiar with ; his facilities for executing the commission in all of its details, and determine particularly the standard he has attained in his work.

SECOND :

The owner's desire is to secure the best service available—the most suitable plan, type of construction and economical use of materials as is possible. These desirable elements of a building operation can only be obtained through employing, not as a luxury, but as a necessity, an expert in the correlation of the many and various portions of the work. The architect's technical experience and knowledge of every phase of the problem makes it desirable as being to the owner's best interests to select the architect before deciding on anything else connected with the project.

THIRD :

Designing a building is a process of development. Nothing less than a complete consideration of the whole problem—site, financing, use of building, size, etc.—can possibly produce a satisfactory result. For this reason pre-determined solutions of a problem by means that are intended only to secure attention are inimical to a client's interests.

FOURTH :

Architects, like other professional men, place varying values upon their services, and the service rendered likewise varies in merit. This should not confuse the owner—whatever is worth having is worth paying for. It is always safe to rely upon the reasonableness of the rates for minimum fees and the principles of practice as recognised by the majority of the profession.

FIFTH :

Architectural competitions are usually unsuccessful owing to clients' misapprehension of the end to be attained. Too frequently it is thought to be an equitable method of discovering a solution to the building problem ; it should be, rather, considered as but one method by which to select an architect, and its employment is now generally restricted to large work.

Plans are not merchandise, they are not kept in stock to be delivered to the casual buyer. Plans are the result of conferences, detailed information relative to a great many matters of consequence, much study and labour, and, therefore, no one has a right to gratuitous work in connection with competition.

"Architecture is the art which so disposes and adorns the edifices raised by man for whatsoever use, that the sight of them contributes to his mental health, power and pleasure."—JOHN RUSKIN.

Art History Congress, Paris, Sept. 26th-Oct 5th.

A Congress on Art History, organised at the suggestion of the Société de l'Histoire de l'Art Français, will be opened in Paris at the Sorbonne on Monday, 26th inst. It will last for about ten days, and will be devoted partly to regular meetings and partly to excursions and visits to buildings of interest and private collections in Paris and the Provinces. The work of the Congress will be divided into four sections :—

(1.) **TEACHING AND MUSEUM TECHNIQUE.**—Questions on method ; the teaching of Art History in various countries ; the preservation and restoration of works of art ; International exchanges as loans between Museums ; Bibliographical collections, works of reference, and exhibition catalogues ; Photographs of works of art.

(2.) **WESTERN ART.**—Architecture, sculpture, painting, engraving, decorative art ; In particular, the relations between French art and that of other countries.

(3.) **EASTERN AND FAR-EASTERN ART.**

(4.) **MUSIC.**—General history ; In particular, the relations between the various national schools ; the editing

and re-publishing of musical texts ; Bibliography and iconography.

The British Committee consists of Sir Charles Hercules Read, President of the Society of Antiquaries, President ; Mr. Laurence Binyon (British Museum) ; Mr. D. S. Mac-Coll (Wallace Collection), and Mr. Eric Maclagan, C.B.E. (Victoria and Albert Museum) Secretaries ; Mr. John Wilson (F.), Professor G. Baldwin Brown (*Hon. A.*), Sir Reginald Blomfield, R.A. (*F.*), Sir Martin Conway, M.P., The Earl of Crawford, P.C. (*Hon. F.*), Mr. J. S. Sargent, R.A. (*Hon. A.*), Mrs. Arthur Strong, and other distinguished persons.

Excursions will be made to Chartres, Rheims, Versailles, Chantilly, Fontainebleau, Comance, and Vaux-le-Vicomte. Receptions, theatrical performances and concerts will be given in honour of the Congress. An exhibition of tracings, drawings and photographs of examples of historical French art has been organised by the Ministry of Public Instruction and the Fine Arts. Visits have been arranged to the Louvre, to the Exhibition of Historical Monuments at the Musée des Arts décoratifs, and to the collections of M. Durand-Ruel, M. de Camondo and Baron Maurice de Rothschild.

The President of the Institute, Mr. Paul Waterhouse, F.S.A., is to read a Paper on either the 27th or 28th inst. Professor Baldwin Brown (*Hon. A.*) will read a Paper on the Nomenclature of Historical Periods.

The subscription is 30 francs (12s.) ; for ladies belonging to the family of a member, 20 francs (8s.).

Applications for membership should be made to the Secrétariat-Général du Congrès d'Histoire de l'Art, Palais du Louvre, Pavillon de Marsan, 107, rue de Rivoli, Paris.

A note from one of the Secretaries states that members of the R.I.B.A. will be most welcome at the Congress. The programme may be seen in the Institute Library.

Burton Memorial Fund : A National Appeal.

At a meeting recently held at the Royal Asiatic Society it was decided to celebrate the Birth-Centenary of the late Sir Richard F. Burton, by the institution of an Annual Memorial Lecture, by a Medal bearing his effigy, and in other suitable ways.

H.R.H. the Duke of Connaught is Patron of the Fund, and Lieut.-Col. Sir R. C. Temple, Chairman of the Committee, which numbers among its members some of the most eminent scholars, men of letters, explorers and research workers of the day. The Hon. Secretaries are Dr. F. Grenfell Baker, M.R.C.S., L.R.C.P., and Mr. N. M. Penzer, M.A., F.R.G.S., M.R.A.S., 12, Clifton Hill, St. John's Wood, N.W. The appeal which has been issued says :—

Recent correspondence in the Press has proved, if proof were needed, that deep and widespread interest is still taken in one who was among the foremost men of his generation.

And what were Burton's claims to fame ?

Above all he was a great Pioneer. He led the way as an explorer of the first rank. He also studied his fellow men profoundly and, by his marvellous interpretation of the inner life and literature of the Arabs and other races, and

his unsurpassed linguistic powers, helped to bridge the gulf between East and West for those who would cross it. He was the moving spirit in founding the first Society for the study of anthropology in this country.

But perhaps he appealed most to the world by the daring of his journeys to Mecca and to Harar, the Unknown: by his intense sympathy for the weak: by his contempt for cant and sham; by his romantic character and by the many indefinable qualities that constitute genius.

It is the privilege of the present generation to raise a Memorial to this Great Pioneer, and thereby to secure that Burton's spirit and Burton's vision shall inspire generations that are yet unborn to emulate his splendid deeds, and thereby to guard a priceless possession of our race.

*He, whose full soul held East and West in pass,
Weighted man with man, and erect of man's with creed.
And age with age, their triumphs and their toils,
And found what faith may read not and may read.*

Cheques or P.O.'s made payable to R. Campbell Thompson, Esq., and crossed "Burton Memorial Fund," should be sent to the Manager, National Provincial Union Bank of England, Union Bank Branch, Oxford.

The Institute TRANSACTIONS for the Session 1878-79 contains an extremely interesting Paper entitled "Remains of Buildings in Midian," read by Sir (then Captain) Richard Burton before a General Meeting of the Institute on the 16th December 1878. There is an interesting Addendum to the Paper headed "Gold in Midian," in which Sir Richard Burton states that the gold mines of Midian had been known for 2,500, possibly 3,000, years, and that not one-thousandth part of the quartz reefs had been touched. The ancients laboured with great skill and care, but water was generally an insurmountable obstacle to the ancient workers proceeding downwards in their mines.

The Society for the Promotion of Hellenic Studies.

The Society for the Promotion of Hellenic Studies, in a recent circular, states that its permanent need is for an enlarged list of members. Having faithfully discharged its trust for the forty years of its existence, the Society now finds itself faced with a serious annual deficit. This is due partly to a loss of subscriptions arising from the War, but still more to the increased cost of every kind of material. The cost of paper, printing, and distribution will double the cost of its Journal; the cost of books, binding, photography and service will double the cost of its library, if these two main activities are to be maintained at their past standard. The only means of recovery and continuance consonant with the time is, not to raise the subscription and give less, but to double the membership and give more. The widespread enthusiasm for education is a most hopeful feature, but education will be incomplete which does not reckon with the beauty, moderation and wisdom of life which characterise ancient Hellas. The Council of the Society feel that they can bring no better gift to the times than to widen the opportunity for profiting from the inspiration that comes from Hellenic Studies. They urge that it is of the first importance that the supply of new members should be constant and increasing, and the best service its members can do the Society is the bringing its work to the notice of their friends.

The Society was founded in 1879 for the following objects:—

I. To advance the study of Greek language, literature,

and art, and to illustrate the history of the Greek race in the ancient, Byzantine, and Neo-Hellenic periods, by the publication of memoirs and unedited documents or monuments in a Journal to be issued periodically.

II. To collect drawings, facsimiles, transcripts, plans, and photographs of Greek inscriptions, MSS., works of art, ancient sites and remains, and with this view to invite travellers to communicate to the Society notes or sketches of archaeological and topographical interest.

III. To organise means by which members of the Society may have increased facilities for visiting ancient sites and pursuing archaeological researches in countries which at any time have been sites of Hellenic civilisation.

The circular above mentioned describes how these tentative plans have been carried out by means of the Society's Journal, its Meetings, and its Library. Of its *Journal* forty volumes and four supplements have been issued. Its meetings are held in the rooms of the Society of Antiquaries at Burlington House; and its students' meetings at the Art Workers' Guild. The Library contains some 12,500 volumes, collections of maps and original drawings, large collections of classified photographs, and some 5,000 slides. Research in Greece itself has been carried out most efficiently by the British School at Athens, in the foundation of which the Society took a leading part. The Society has made substantial annual grants to the School: and has given similar help to the British School at Rome, the Asia Minor Exploration Fund, the Cyprus Exploration Fund, and the Cretan Exploration Fund, associated with Sir Arthur Evans's brilliant discoveries.

The Secretary of the Society is Mr. John Penoyre, C.B.E., 19 Bloomsbury Square, W.C.

Preservation of Old Stone.

Professor A. P. Laurie, M.A., D.Sc., Professor of Chemistry to the Royal Academy, writing in the *Builder* of the 9th September on stone preservatives and their application to the old stone of our precious cathedrals, says:—

No preservative with a fancy name, of which the chemical composition is not revealed and reported on by a chemist, should be applied to an old building. . . . And if the preservative is applied it must be applied to the stone as it is, with a spray or very soft flat brush, and without any preliminary brushing or scrubbing of the surface.

Three things should be required of the preservative—deep and permanent penetration, waterproofing of the stone, and hardening and binding together of the loose decaying surface. Any darkening of the stone should be merely temporary, bleaching out in a few months, and the preservative should dry dead, and not produce a greasy surface.

After many years' experimenting I have come to the conclusion that the preservative that best fulfils these conditions is a properly prepared solution of suitable resins, which harden and cement together, and waterproof the stone to a considerable depth. The solution is laid on with a soft flat brush, and repeatedly applied until a penetration of at least half an inch has been obtained over the whole surface. The stone is darkened at first very much as it would be after a shower of rain, but even this amount of darkening soon disappears. The solution has to be made in special solvent, and the strength adjusted to the particular stone to be treated. At the present price of raw materials it should not cost more than ten shillings a gallon, and three pints to the square yard should be found sufficient. An ordinary labourer can soon learn to apply it, and should be able to apply one coat to twenty-five square yards of intricate moulding and carving in a day. As it dries in, fresh coats are applied until the proper quantity is absorbed. In

each case, however, a careful examination of the surface to be treated, and testing of a sample of the stone, are necessary before the solution can be made up, and further examination should be made from time to time during treatment to see that proper penetration has been secured.

Lead in Paint.

The Home Secretary has appointed a Committee to re-examine, more particularly in the light of the further information which has become available since the inquiries of the Departmental Committees appointed in 1911, the question of the danger from the use of lead paints to workers in the painting trades, and the comparative efficiency and cost, and the effect on the health of the workers, of paints containing lead and leadless paints respectively; and to advise whether any modifications of the conclusions and recommendations of those Committees have become necessary. The Committee consists of Major the Right Hon. Sir Henry Norman, Bt., M.P. (Chairman), Mr. Gerald Bellhouse, C.B.E., Mr. O. J. Kauffmann, M.D., Mr. Thomas M. Legge, C.B.E., M.D., Mr. Alan Munby [F.], Mr. Alexander Scott, F.R.S., D.Sc., and Mr. H. O. Weller. The Secretary is Mr. C. W. Price, of the Home Office, Whitehall.

The Craft of Glass Painting and Staining.

The British Society of Master Glass Painters has been established for the following, among other objects: To promote, encourage, assist and carry out whatever may tend to elevate the art or craft of glass painting and staining; To take steps for the preservation of the ancient glass of this country; To formulate the usages and customs of the craft and to frame such regulations and adopt such a standard of workmanship as will create public confidence in members of the Society and uphold and maintain the national reputation in relation to the craft; To give the Legislature, and public bodies and others, facilities of conferring with persons engaged in the craft; To devise a scheme or schemes whereby candidates for admission to the Society may prove their qualifications as glass painters; To improve the technical and general knowledge of those engaged in the craft, and to provide for the delivery of lectures and the holding of classes; To establish a Library and collection of models, designs, drawings, etc., in connection with the craft, etc., etc. The members consist of Fellows, Associates and Hon. Fellows. Fellows must be at least 25 years of age and have had a regular training in the craft of stained-glass artist; Associates must be at least 21 years of age and be carrying on the craft either as principals or as assistants. The Earl of Plymouth [*Hon. F.*] is President of the Society, and Sir Reginald Blomfield, Litt.D. [F.], Mr. John W. Simpson [F.], Professor Selwyn Image, Sir Cecil Harcourt Smith, LL.D. [*Hon. A.*], and Dr. Montague R. James, Litt.D., *Vice-Presidents*.

The Right Place for the Church Organ.

Sir Charles Nicholson [F.] in an address on "Church Architecture and Organs," delivered at the Congress of the National Union of Organists' Associations at the Royal College of Music on the 20th inst., said that our churches had suffered very much architecturally from misguided but well-intended additions made by organ builders. Many blunders and much disappointment would have been avoided in many of these cases had a competent architect been consulted. The architectural result was comparable with the music which would be produced by an orchestra in which each instrument was tuned to a different pitch. Difficulties arose in the case of almost every ancient church, but they could, as a rule, be overcome in good-sized buildings.

When one came, however, to the smallest class of village church, where there was really no room for an organ at all, except one of the so-called positive organs, it was to be wished that some sort of instrument could be invented that would fit into such buildings without disfiguring them and yet would be less disagreeable to listen to than a harmonium or organ. He often had thought that if a two-manual instrument could be constructed, one manual operating a set of piano strings and the other a set of reeds or organ pipes, it would go a long way towards solving some of the difficulties of providing a satisfactory accompanying instrument in a small church, or possibly in a large church. In dozens of parish churches the fatal mistake had been made of placing the organ in one of the aisles or chapels flanking the chancel. This was absolutely destructive of the architectural effect of many fine church interiors. An organ so placed was deprived of the immense advantage of having plenty of open space around it. If he were responsible for placing an organ in an old church and circumstances necessitated its being placed at the east end of an aisle he should strongly urge the authorities to be content with a small organ, and to place it standing free in the aisle and not in the corner of the church. Every organ should have a substantial case, and the whole instrument should be placed on a gallery.

The London Society's "London of the Future."

Mr. Fisher Unwin announces the publication on 5th October of the London Society's book, *London of the Future*, which has been produced under the editorship of Sir Aston Webb, K.C.V.O., C.B., P.R.A., Chairman of the Council of the Society. The following list of its contents gives an idea of the scope and objects of the work:—

Foreword (The Earl of Plymouth); Introduction (Sir Aston Webb); The Opportunities of London (T. Raffles Davison); Roads, Streets, and Traffic of London (Colonel R. C. Hellard); London Railway Reconstruction (H. J. Leaning); Commercial Aviation and London (Lord Montagu of Beauchamp); The Bridges of London—1815–1920 (Sir Reginald Blomfield); London and the Channel Tunnel (Sir Arthur Fell, M.P.); The Surrey Side (Paul Waterhouse); Central London (Professor Adshhead); The Port of London (Viscount Devonport); The East End (The Rt. Rev. H. L. Paget); Some Thoughts on the Development of London (Raymond Unwin); The Housing of London (W. R. Davidge); The Government of London (W. E. Riley); The Parks and Open Spaces of London (David Barclay Niven); London as the Heart of the Empire (The Earl of Meath); The Smoke Plague of London (The late Sir William Richmond); The Spirit of London (The Marquess of Crewe).

The price of the work is £2 2s. net, postage 9d. extra.

The Official Organ of the Building Trade.

A welcome addition to the Building Press has made its appearance in *The National Builder*, the official organ of the National Federation of Building Trades Employers of Great Britain and Ireland, edited at the Federation's Offices, 48, Bedford Square, and published by the Compendium Press, Cromwell House, Strand, price 1s. monthly. It is an imposing-looking publication, bearing a handsomely-lettered title and a picture of a classic temple on its stiff, parchment-like cover, and is well printed on good paper. One marvels that an organisation with so extended a sphere of influence should have remained so long without a journal of its own. This first number is a very readable one. Its leader (unsigned), headed "Jettisoning the Cargo," gives the private builder's views on the *impasse* brought about by the Government's Housing Policy, and

points out that what it is necessary to discover is some happy mean between the dreams of the idealists and the realisms of the materialists. The General Secretary, Mr. A. G. White, who contributes "National Notes," expresses the opinion that the imminent cessation of the Government's housing programme will quickly have the effect of leaving the provision of houses to private enterprise, and the fall in building costs should soon make it possible for capital to be once more obtained for housing purposes. Among other contributions are special articles by Mr. Ernest G. Brown on "The Institute of Builders," "The Truth about Dilution," by Mr. Stephen Easton, "Houses on the Move," by Mr. Jno. Croad, and "Co-operation in the Building Trade," by Mr. Samuel Smethurst.

Ministry of Agriculture War Memorial.

The assessors appointed by the War Memorial Committee of the Ministry of Agriculture to adjudicate on the competition held recently for the most suitable design for a memorial to those members of the staff who died on active service during the war have unanimously selected the design of Mr. H. Duncan Hendry [A.]. The competition was limited to the staff of the Ministry, and there were 17 entries. In view of the high standard of the designs submitted and the assessors' recommendation, all the drawings were put on exhibition in the large conference room of the Ministry. Mr. Hendry is one of the Ministry's superintending architects under the land settlement scheme. He has returned the prize to the fund, raised by subscription among the staff, which provides for the memorial. During the war Mr. Hendry saw active service with the Royal Engineers, chiefly in the East. His design provides for a marble tablet of cartouche form, surmounted by a bronze roundel bearing a replica of the old seal of the Board of Agriculture and Fisheries within a wreath supported by emblems. The field of the cartouche bears a simple inscription with the names of the fallen. The memorial will be erected in the entrance hall of the Ministry's new offices.

Professor Laurie's Lectures at the Royal Academy.

Professor A. P. Laurie, M.A., B.Sc., Professor of Chemistry in the Royal Academy, is delivering the following lectures at the Academy at 4 p.m. on the dates mentioned:—

- (1) *Wed., Nov. 16.*—Medieval Pigments and Mediums.
- (2) *Thurs., Nov. 17.*—Modern Pigments: their proper Selection and Use.
- (3) *Friday, Nov. 18.*—Painting Media: Oils, Varnishes, and Tempera.
- (4) *Mon., Nov. 21.*—Methods of Wall Painting.
- (5) *Tues., Nov. 22.*—The Theory of Colour and its Application to Painting.
- (6) *Wed., Nov. 23.*—The Nature and Properties of Building Materials. Bricks and New Methods of Making Them.

The Great Cities of the World.

The Garden Cities and Town Planning Association are arranging a first series of illustrated lectures on the "Great Cities of the World" to be delivered at King's College, Strand, at 5.30 p.m., on the dates mentioned below. Professor Patrick Geddes will deliver the first lecture on 13th October, dealing with the City of Jerusalem. On the 10th November Dr. H. P. Berlage will lecture on Amsterdam—Past and Present. On the 8th December the City of Milan will be dealt with, lecturer to be announced later. Lectures on Washington, Brussels, Glasgow, and Tokio will be given during 1922. Tickets of admission, price 2s. 6d. each, are to be obtained from the Secretary, Garden Cities and Town Planning Associations, 3, Gray's Inn Place, W.C.

Proposed Garden City for Paris.

It is announced that a scheme is on foot for building what will be the first garden city for Paris workmen on the dismantled fortifications. It is intended to build houses to accommodate 2,500 persons on an area of 88,000 square yards. The flats will consist of one, two, three, and four rooms, with kitchens, at rents ranging from 600 f. to 1,092 f. There will be gardens and open spaces for recreation, a nursery, a maternity school, children's dispensary, wash-house and baths. The cost of this garden city, which will be planned between the Boulevard Ornano, the Rues Damremont, Du Ruisseau, Du Ponteau, and the Boulevard Ney, is put at 24,000,000 f.

REVIEWS.

MEDIEVAL BUILDINGS IN GREECE.

A Medieval City in Greece: Its Churches and its Ruins. By the Rev. J. Arnott Hamilton, B.D., former Student of the British School at Athens. 4s. Aberdeen, 1921. 3s. net. [W. Jolly and Sons, Ltd., Albany Press, Aberdeen.]

The author of this volume has done valuable work in a field of research which has hitherto been somewhat neglected. To the traveller in Greece the relics of classical antiquity have such overpowering claims upon his attention that the highly interesting mediæval buildings in that country often fail to receive the notice they deserve. Mr. Arnott Hamilton has given an historical survey of the circumstances which led to the erection of a remarkable series of Byzantine churches in the Peloponnese. The city of Mistra, the subject of this essay, is near the site of classic Sparta. Its oldest portion was erected in 1248–9 by William U. Villehardouin, a Crusader, who succeeded in establishing himself as Prince of Achaia. He built monasteries and abbeys in different parts of the country. On his death in 1278 the principality fell under the suzerainty of Prince Charles of Anjou, and subsequently a long succession of Italian, Flemish and other rulers bore sway over it. The churches of Mistra, three examples of which are illustrated in the frontispiece, are mostly built on the Greek Cross plan, with dome on pendentive and barrel vault. Although devoid of richness in external decoration, these squat churches with their central circular or polygonal towers surmounted by low-pitched pentiled roofs have an undeniable charm. The student of Byzantine architecture will find much of interest in Mr. Hamilton's learned analyses of both the plans and sections of these churches, in the design of which a considerable variety of constructional device has been employed.

A. TRYSTAN EDWARDS [J.].

ALLIED SOCIETIES.

The Berks, Bucks and Oxon. Architectural Association.

The *Year Book* of the Berks, Bucks and Oxon. Architectural Association, which has just made its appearance, gives evidence of remarkable vitality and energy on the part of the executive of this newly-formed Association. The Association owes its inception to Mr. C. B. Willeocks [F.], who, by his energy and interest, was successful in founding

the Reading Society of Architects, of which he is Hon. Secretary. The result of his unflagging energy was shown by the rapid progress made by the Society, which in three months numbered 42 members. On the 6th April, 1921, the Reading Society held a special meeting, to which all architects in the three counties were invited, to consider the advisability of forming a Three Counties Association. The meeting was presided over by Mr. C. Steward Smith [F.], President of the Reading Society, supported by Mr. Ian MacAlister, Secretary of the Royal Institute. Mr. MacAlister addressed the meeting on the advantages of an alliance, and the outcome was a resolution to form the Berks, Bucks and Oxon. Architectural Association. An Executive Committee was appointed to draft a Constitution and on the 2nd June the Constitution was approved and the officers of the Association elected. Application for alliance with the Royal Institute was made to the Council and was at once acceded to. The Association therefore has come into being and commenced its career with a membership of 91, exactly three months after the suggestion was laid before the representatives of the three counties. "It is hoped," says the *Year Book*, "that all architects in the three allied counties will become members and assist the Association in furthering the object for which it is founded. The Association is indebted to the Council of University College, Reading, for having very generously offered the use of a room at the College for meetings, and it is hoped that arrangements may be made by which students will be granted facilities for using the College Library. Mr. Paul Waterhouse, President of the Royal Institute, has shown his interest in the Association by becoming Hon. Vice-President, thus conferring a distinction which is greatly appreciated by the members. The Council also feel that the Association is to be congratulated on having so able and eminent a member of the profession as its first President" (Mr. Edward P. Warren, F.S.A. [F.]).

An endeavour is being made to awaken the interest of members in the Library which it is hoped to build up and for which the Council will, if possible, allocate sums for the purchase of books. Mr. H. Whiteman Rising [F.] has undertaken the office of Hon. Librarian.

Competitions have been arranged for the following: (1) Design for the Association's Badge; (2) Prizes of Books for Measured Drawings; (3) the President's Prize, of which particulars are to be announced.

Provision has been made in the By-laws of the Association for the formation of Branches either for the whole of any of the three counties, with the capital town of the county as centre, or for districts having an important city or town for centre, as may be determined by the localities affected. At present, the Association numbers three Branches—viz., the Reading Society of Architects, the Oxford Society of Architects, and the Slough Society of Architects. Each Branch has its own executive, and the Council each year refunds to the respective Branches half the annual subscriptions received from the members of each Branch, such sums to be used for Branch working expenses.

The first meeting of the Association was held at University College, Reading, on the 6th July, when an Address was delivered by the President, Mr. Edward P. Warren. It is much regretted that space admits of the inclusion in these pages of only the appended fragment of this excellent Address: "it may be read in its entirety, however, in the Association's *Year-Book*, of which the Institute Library has copies. The following extract is specially addressed to young architects:—

I have spoken of the importance of tradition—of a traditional manner of building. This does not mean that I think Architecture should be or can be conducted by definite rules, but that the question of what is constantly spoken of as "a choice of style" should never arise. In a healthy state of things, with a building problem before you, and your design to work out, it would no more occur to you to think of the "style" you should "adopt," to use that dismally suggestive phrase, than it would to debate with yourself as to whether you should write your letters and specifications in Chaucerian, Shaksperian, or Miltonian English, or indeed in French, Latin or Greek. You would express yourself in the vernacular manner you had learned and made your own, with such little ornaments and flourishes as you found pleasant or helpful, in the manner of architectural quotations.

In your student days it may be extremely educative to try essays in design in accurate imitation of an ancient and foreign style, just as at school one learns dead languages by kindred exercises, but when you are confronted with the problem of a building for the actual needs and the definite requirements of a site in your own country, think twice and thrice, and more than that, before you dress your design in an exotic manner. Think of your materials, and of what can and can't be done with them, what is the best way in which they will help your expression; think of your site, and neighbour buildings if such exist, and above all of the positive requirements and use of your building and all its parts. Work from your plan upwards, design in fact from the inside to the outside, and not from the outside in.

I have said that there was a pseudo-Greek fashion in England at the end of the eighteenth and beginning of the nineteenth centuries: it led on the whole to dismal results and died out. It is now the fashion to try and be Greek again. Beware of following that fashion too far. There are lessons of inestimable value to be learned from Greek Architecture, lessons of extreme refinement of proportion and of detail, of the appropriate use of materials, and of submission to requirements, and local conditions.

The requirements, however, of such examples of ancient Greek buildings as you can study, are mainly those evolved by the special ritual of a dead religion, for they are generally Temples, and in a clear and brilliant climate, with a high average of blazing sunshine and intensely blue sky. The material which was used, and which begot the delicate accuracy of moulding and ornament, is mostly very hard native marble, as different as possible from our British stones, in which the effects of such extreme refinement are unattainable, and to which indeed they are inappropriate.

You will probably have to build in brick and stone, and quite possibly in concrete. You will have a very different climate to consider, and, most likely, civic, domestic and commercial uses, as a rule, to provide for.

You will have to insert many windows, and to erect many chimneys. The Greek buildings, that is the temples, had very few of the former, and none of the latter. The Greek manner was entirely trabeated, a system of posts and lintels—you will probably require arches.

The Greek temples were designed to be coloured, and were coloured brilliantly; their marble is now roasted by centuries of sunshine to a golden brown, very beautiful against the intense blue skies of Greece.

I suggest your learning all you possibly can of their wonderful harmony of proportion, and of their refinement, but making no attempt externally, at any rate, to imitate their details in British freestone and under British skies.

A thoroughly exotic manner of architecture evolved by alien conditions and materials can never look other than self-conscious and uncomfortable here; it needs a "sea change," translation and reclothing, just as Orientals who visit our chilly shores soon discover the need of something approaching to our native costume.

I am very far from advocating ignorance of foreign architecture. A man who knows nothing of the building manners of the East, of Greece and Rome, and of Italy and

France, cannot possibly understand the architecture of this country, which has all had its origin in imported manners, very notably so since the Norman Conquest, but which, like trees of foreign importation, such as the elms that stud the hedgerows and border the roads of our three counties, has modified itself to our native conditions and flourished and spread accordingly.

You will never be so safe as when you can use in a country-side the nearest available good local material worked in the local traditional way. This, of course, is not always possible, and the transport of materials from a distance is inevitable, and no new thing. As witness Stonehenge and its foreign stones. But be sure that your "foreign" material is suitable to your site and purpose.

I have just lately seen in our Counties—in all three of them—many War Memorials in granite, Scotch or Cornish, which I deplore. They look intensely out of harmony with our mild pastoral countrysides and homely villages.

Granite, except for purposes requiring rude strength, such as bridge piers or the like, is best left to its rugged native localities. In our three Counties, at any rate, and for monumental purposes, it is anathema.

Of the common blue Welsh slates so omnipresent and inescapable I feel the same. I'd like to leave them in Wales. Their only excuse is their cheapness, but this hardly excuses their nastiness.

I am drifting, however, from my points, which are that national or local needs shall beget natural or local expression, that architectural styles should not be merely imitative, and cannot be overlaid or applied to buildings not akin in essentials to the sources of their origin, with any hope of real success, but that a real style grows from constructive needs, which it emphasises and adorns.

Those of you who live and work in the Country, and whom I envy on that account, have a better chance than the town bird of arriving at a really intimate knowledge of the simple traditional developments of building manner, in the delightful and humble old buildings that seem to have grown from the soil, where they stand in the little towns, villages and homesteads of these three delightful Counties. If, as I fully admit, a few educative years in a great town are good for the Country Architect, I am very sure that a similar period amid the homelier actualities and the quieter and more sympathetic, more beautiful and infinitely more healthy conditions of the country would be good for the town-bred man. But those alike who practise in great towns, or in small country towns, I should exhort to a determined patriotism in architecture.

The tragic years of the Great War, so recently left behind, have shown us all a clearer vision of the duties of citizenship. An artist of any kind has no more right to stand aside from such duties than any other man. He should share the common patriotism, the common civic tasks, but he should be impelled by the sense of his special knowledge and special responsibility to improve as far as in him lies his own branch of art, to do his utmost by personal effort, example and influence, to add to the beauty and amenities of his Country, to which he thus can make his own patriotic contribution. And what art can so immediately express and adorn the civilisation of any country as its Architecture.

The Royal Architectural Institute of Canada.

The Royal Architectural Institute of Canada is holding its Fourteenth General Annual Assembly at Toronto on the 10th and 11th October. The Annual Convention of the Ontario Association of Architects will be held at the same time and joint sessions have been arranged. The Federated Societies of the Royal Architectural Institute of Canada consist of the Alberta Association of Architects, the Manitoba Association of Architects, the Ontario Association of Architects, the Province of Quebec Association of Architects, the Saskatchewan Association of Architects, and the Architectural Institute of British Columbia.

COMPETITIONS.

Auckland (New Zealand) War Memorial.

The New Zealand Institute of Architects have cabled the R.I.B.A. that they consider the conditions of this competition very unsatisfactory, and that they are negotiating for their improvement. It is hoped that the combined efforts of the R.I.B.A. and its allied Institute will secure the satisfactory amendment of the conditions. In the meantime, members are warned to take no action with regard to the competition until the conditions have been brought into accordance with the R.I.B.A. Regulations.

IAN MACALISTER, *Secretary.*

The "Daily Mail" Labour-Saving House Competition.

The *Daily Mail* is offering prizes of £300, £125 and £75 for the best designs for a labour-saving house for a professional class family who would occupy a house of £1,000 to £1,200 cost at pre-war rates of building, and which would now cost anything from £2,500. A house will be erected at the *Daily Mail* Model Village, Welwyn Garden City, Herts, to the plans of the design winning the first prize of £300, and a model will be shown at the Ideal Home Exhibition at Olympia, 1st to 25th March 1922.

The house is to have the following accommodation, to be provided on two floors: Dining-room, drawing-room, den or study, kitchen, five or six bedrooms, bathroom. There should also be a maid's sitting-room adjoining the kitchen. The house is to be suited to the suburbs of a large town or city, and its approximate cost to be £2,500. Competitors may enter not more than one design. A high architectural standard of design is expected, but each design will first be considered from the point of view of labour-saving. An architect sending one entry of his own can collaborate with another (not an architect) in another entry.

The *Daily Mail* reserves the right to publish any design entered in the competition, with the name and address of the architect, also to erect houses or individual rooms according to any of the designs submitted, but, in the latter event, the author of the selected designs will be employed to superintend the erections, and will be paid for his services in accordance with the R.I.B.A. Scale of Professional Charges. Subject to this provision, the designs to remain the property of the competitors. Further, the promoters reserve the right to publish the names and addresses of competitors whose plans, though not published, may attain a high standard of merit. They also reserve the right to incorporate in the house to be erected at the *Daily Mail* Model Village any novel idea or improvement suggested by any competitor (due acknowledgment being made to the author in the catalogue or on the exhibit itself), even though no prize may have been awarded in respect of it. Any questions must be addressed to the Secretary, Labour-Saving Home Competition, 130, Fleet Street, E.C.4, on or before September 24th. These questions will be printed with answers and circulated to all competitors who ask for them. The printed answers to questions are to be read as supplementary conditions in this competition. Designs must be sent in on or before 30th November. A pamphlet giving the Conditions of Entry and Suggestions for the consideration of competitors may be obtained from the Secretary of the competition at the above address.

New Competition Open.

Borough of Paisley War Memorial. Premiums: First, £250; Second, £200; Third, £150. Assessors, Sir Reginald Blomfield, R.A., and Mr. D. Y. Cameron, R.A. Latest date for sending in, 3rd December. Conditions may be seen in the Institute Library.

OBITUARY.

The decease of the following members is regretfully recorded:—

BARLOW, WILLIAM TILLOTT, of Bognor, elected *Associate* 1894.

BUCKLEY-JONES, JAMES ALFRED, of Henley-on-Thames, *Associate*, elected 1899.

COX, G. A., of Birmingham, *Licentiate*.

FYSON, ERNEST WILLIAM, of Barnsley, *Licentiate*.

FORD, GEORGE MCLEAN, of Bank Chambers, 329, Holborn, elected *Associate* 1892, *Fellow* 1908.

HUNT, FREDERICK WILLIAM HUGH, elected *Associate* 1868, *Fellow* 1881.

KEECH, EDWARD WILLIAM, *Licentiate*.

LECHMERE-OERTEL, FREDERICK OSCAR, of Allahabad, elected *Associate* 1888, *Fellow* 1901.

LITTLEWOOD, WILLIAM HENRY, of Manchester, elected *Associate* 1882, *Fellow* 1888.

MONRO, JAMES MILNE, of Glasgow, elected *Fellow* 1906.

NOTLEY, ROBERT PLEDGE, of 92, Upper Clapton Road, N.E., elected *Associate* 1868, *Fellow* 1873.

OWEN, JOSEPH, of Menai Bridge, elected *Fellow* 1905.

The death has been announced of Mrs. Woodward, wife of Mr. Wm. Woodward, *Fellow*, and mother of his two sons and partners, Messrs. Frank and Charles Woodward, *Associates*. Widespread sympathy is felt with father and sons in their sad bereavement.

A Hong Kong Appointment.

An Architectural Assistant (A.R.I.B.A.), aged 25 to 30, is required as soon as possible for service as an Assistant Engineer in the Public Works Department, Hong Kong. The engagement is for three years, at the end of which period there would be a prospect of being placed on the permanent and pensionable establishment of the colony. A strict medical examination must be passed. Salary £400 rising to £440; if permanent, by annual increments of £20 to £600. Officers pay 6 per cent. on salary for their quarters, the Government paying balance of rent. Free passages out and home. Fuller particulars may be had at the offices of the Institute, 9, Conduit Street.

Architectural Students' Fancy Dress Ball.

A great fancy dress ball is being organised, for the opening of the season, by the students of two of the Royal Academy Ateliers—the Architectural Association Atelier and the Society of Architects Atelier. The Ball will take place on the night of 4th November at the R.I.B.A. Galleries, 9, Conduit Street. The profits derived from the dance will go to the funds of the Ateliers concerned, to be employed in the improvement and advancement of architectural training. Tickets, price 15s, may be had from the Organising Hon. Secretary, Captain M. G. Kiddy, 28, Bedford Square. Tickets at a reduced price are available for architectural and art students.

The Institute Common Room.

The need of further office accommodation has rendered necessary certain alterations in the Institute premises which are now being carried out. The Council Room on the ground floor is being done away with, and the space utilised for enlarging the Clerks' Office and providing a room each for the Secretary and Assistant Secretary. The Council will hold their meetings for the future in the Common Room, and as the room will have to be closed to members on meeting days, the front room on the second floor has been made available, and members are invited to use it on these occasions for tea, smoking, writing, etc.

Newly Registered Probationers R.I.B.A.: Erratum.

N.B.—The name given as "Boothroyd, Richard John" in the list published in the last number of the JOURNAL, p. 561, should read BOOTHROYD, CYRIL ALBERT, of 11 Ward's End, Halifax.

MEMBERS' COLUMN.

Members, Licentiates and Students may insert announcements and make known their requirements in this column without charge. Communications must be addressed to the Editor, and be accompanied by the full name and address. Where anonymity is desired, box numbers will be given and answers forwarded.

Appointments Wanted.

A qualified Civil Engineer 20 years' experience, ex R.E. Officer and Civil Servant, desires to join an Architect of repute with a view to extension of practice.—Address Box 591, c/o Secretary R.I.B.A.

Architect (39), A.R.I.B.A. ex-Officer, desires responsible permanent Appointment, preferably with a view to partnership, London or South. Administrative and Secretarial work in addition to Architecture. Highest references as to character and ability.—Apply Box 491, c/o The Secretary R.I.B.A.

A.R.I.B.A., with 18 years' varied experience, desires appointment, preferably with view to partnership, but this is not essential.—Address Box 591, c/o Secretary, R.I.B.A.

A.R.I.B.A. desires berth. Fully qualified including quantities. Age 43. Specimen drawings and references. Moderate salary. Lancashire preferred.—Address Box 691, c/o Secretary R.I.B.A.

A.R.I.B.A., aged 43, single, wishes post as assistant to British firm in China, South America or South Africa. Sixteen years' experience less war service. Affiliated to well-known Scotch Architect. All-round experience, including public works in London. Willing to sign contract.—Address Box 791, c/o Secretary R.I.B.A.

The R.I.B.A. at present employed as assistant in a Government Department, Housing Section (disengaged shortly, owing to reduction of staff), seeks engagement, in or near London preferably. Fifteen years' varied experience at home and abroad. Salary £6. Excellent references.—Apply Box 891, Secretary R.I.B.A.

A.R.I.B.A., age 34, Licent. R.E., desires post as senior assistant, either in London or provinces, preferably one with a view to future partnership. Seventeen years' thorough experience in ecclesiastical, domestic and commercial work. Past student R.A. Schools member of London Architects. Highest references.—Address C.W. Box, 60, Tuiton Street, Westminster (Tel. Victoria 6351).

Wanted, permanent position in Architect's and Surveyor's office by married man, London or suburbs preferred. Small capital offered as preliminary to interest in firm. Moderate salary. Good credentials.—Apply A. 1, The Terrace, Rochester.

Owing to stoppage of housing schemes, Architect (45) A.R.I.B.A., M.C.I., qualified District Surveyor, old Royal Academy Schools student, with 12 years' first-class London experience—hospital, industrial and general work, prior to 2½ years' country practice (housing), would be glad of an engagement, town or country, to tide over slack period. Highest references.—Box 991, c/o Secretary R.I.B.A.

Licentiate. Engagement desired. Many years' experience. Willing to help Architects at 4s. per hour. Desirous of obtaining use of a room in an office in return for part assistance. Highest references.—Address Box 1091, c/o Secretary R.I.B.A.

Architect's Assistant. Associate desires engagement. Past experience in first-class offices. Specimens of work and references.—Address Box 1191, c/o Secretary R.I.B.A.

FOR SALE.—Strong 11-inch Dumpy Level (with Compass) in Mahogany Case. Good condition. Price £10 10s.—R. E. Crossland, 11 & 9 King's Bench Walk, E.C.4.



PRESENT CONDITION OF THE BASSAE TEMPLE.

FURTHER EVIDENCE FOR DYNAMIC SYMMETRY IN ANCIENT ARCHITECTURE.

By JAY HAMBIDGE.

Read before a Joint Meeting of the Royal Institute of British Architects and the Society for the Promotion of Hellenic Studies, Tuesday, 1st March 1921.

IT will be understood that within the limits of an evening's talk it will be impossible to explain in detail the complete plan of a building such as that of the Parthenon, where refinement of composition is carried to an extreme. I have, therefore, limited myself to the most essential part of the structure, the temple proper or the room which contained the statue of the goddess. Within this room I shall confine my remarks to that part which immediately enclosed the statue. This is the area defined by the column centres surrounding the nave and also the nave itself. Other proportions of the building may be briefly mentioned.

It would seem, judging from the plan as it is now possible to present it, that this part of the cella area was considered by the architect, or the architect in collaboration with the sculptor, as of the utmost importance. It is significant that the statue-enclosing part of the general plan of the building should be found to be based upon that area which constitutes the crux of the dynamic symmetry idea. This area is represented by the difference between root 4 and root 5. The root 4 area is composed of two squares and the root 5 shape is fixed by a diagonal to these two squares. Numerically root 4 equals 2 and root 5 equals 2.236. The area in question, therefore, is represented by unity, or a side of one of the two squares, and .236—more exactly .236068 plus. This number, being less than unity, is the reciprocal of some number representing some area greater than unity. Division into unity shows us that the number or area in question is 4.236, that is, it is composed of root 5, or 2.236 plus root 4 or 2—two squares plus a root 5 rectangle. It will be noticed that this mysterious figure, which is really the key to classic Greek proportion, is a compound of the two generating shapes, root 4 and root 5. It is beside the point to say, as so many of the intellectual lazy do say, that a few simple numbers in connection with the few simple operations of arithmetic are abstruse and difficult to understand. Experi-

ments with lower grade school children have shown that there is nothing more abstruse in the presentation of symmetry in terms of arithmetic than the average boy or girl of twelve or fourteen may understand. I have elected to use terms of arithmetic for the reason that they supply a method of proof which would be difficult and abstruse if any other scheme were employed for this purpose.

The point needs stressing that we are now inspecting symmetry by analysis. The Greeks probably never had occasion to approach the subject from this angle. All the proportions which we find in classic temples develop logically from simple areas, and no instrument more complicated than a string or rope would be necessary for the synthetic operation. The plan of the temple as it stands to-day is something in the nature of a geometric puzzle, and to find a clue to its solution we must employ every means of analytic approach which ingenuity can devise.

To return to the areas themselves. Practice in the subtleties of manipulation of these shapes teaches us that we may regard any figure of the dynamic series as divided or multiplied by ten—*i.e.*, we have in these areas a natural decimal system. If we multiply .236068 by 10, we obtain 2.36068 and its reciprocal will be .4236 or 2.36068 divided into 1, and if we divide a 2.36068 area by 10, each one of the ten divisions will be a 4.236 area and each may be represented by its reciprocal .236068.

The decimal manipulation of this specific area is what we actually find in the plan arrangement of the Parthenon cella. The nave is surrounded by twenty-three columns, ten on each flank and three on the west end, not counting the angle columns in the latter case. The east end is fixed by the wall and doorway. This arrangement means that the area defined by the centres of these columns is divided into ten strips, each strip being fixed by an intercolumniation and one strip by column centres and the east wall. We obtain these strips by drawing a line from centre to centre of opposing columns across the nave. Eight of these strips of area are equal in width; two are not. The area defined by the east wall of the statue room and the centres of the first opposing columns to the west of the wall, and the area defined by the angle column centres and the centres of the first opposing columns to the east are unequal in width and both are unequal with the eight regular intercolumniations. The two unequal strips we may designate as east and west strips. The west is wider than the east strip, but the two added together equal exactly two of the regular intercolumniation strips. In contrast to the angle and second column centres of the peristyle the angle and second column centre widths of the cella are greater than the regular intercolumniations, considerably so.

If we take the length as defined by the east wall of the cella and the centres of the angle columns—*i.e.*, 85.5012 feet—and divide it by the width, 36.22 \pm feet, from centre to centre of opposing columns across the nave, we obtain the ratio 2.36068.

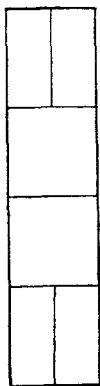


Fig. 1.

Penrose says the mean for the eight regular intercolumniations is 8.55 feet. It is clear from the above ratio that each of these eight regular strips will have the reciprocal ratio .236068, this reciprocal being that of 4.236—*i.e.*, each of these areas will be composed of two squares plus a root 5 area; 2 plus 2.236 (see Fig. 1).

For the purpose of making the general plan clearer the two squares are placed in the centre of the above arrangement.

The distance from the east wall to the centre of the first column to the east is 7.5337 feet, plus or minus. If this is divided into 36.22, plus or minus, we obtain the reciprocal ratio .208.

The distance from the centre of an angle column to the centre of a first column to the east is 9.562 feet, plus or minus. Dividing this into 36.22 we obtain the reciprocal ratio .264. This, added to .208, equals .472 or .236 multiplied by 2—*i.e.*, these two strips of unequal width, added, equal two of the eight regular strips.

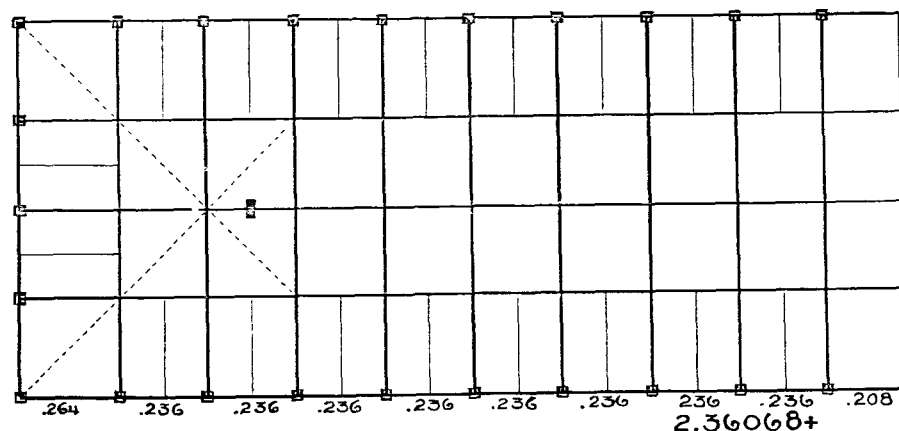
The entire length of the area we are inspecting is 85.5012 feet, plus or minus. Eight regular intercolumniations of 8.55 feet equal 68.40 feet. Adding 9.562 and 7.533 we obtain 17.095. This, added to 68.40, equals 85.495. Subtracting this from 85.5012 we have an error of .006 or about

six one-hundredths of an inch in over 85 feet. Combining Penrose's, Doerpfeld's and my own measurements for this particular section, this error is much reduced if not entirely eliminated. It may stand, however, as it is within the error of workmanship of even classic masons.

Dividing .208 and .264 into unity we find that the former is the reciprocal of 4.7888 and the latter of 3.7888.

The reciprocal of root five is .4472, also a root five area. If this is multiplied by 4 the result is 1.7888. From this we see that the .208 figure is composed of three squares plus four root five areas. 3 plus 1.7888 equals 4.7888, while .264 represents an area composed of two squares plus four root five areas ; 2 plus 1.7888 equals 3.7888.

In the distribution of the area elements of the eight regular strips we have two squares in the centre and two small root five shapes on either end as in Fig. 1. The purpose of this arrangement becomes apparent when we consider the .264 strip at the west end of the great rectangle. Here, instead of the above arrangement, we have two large squares defined by the centres of the angle columns and the centres of the columns immediately to the north, south and east, and instead of two squares in the centre there are four root five rectangles, Fig. 2.



The rectangular black spot is the centre of the statue base.
Fig. 2.—The 2.36 Rectangle from the Parthenon Cella.

The presence of these two areas, .208 and .264, on the east and west ends of the great rectangle of the cella column centres leaves no doubt in my mind that this distribution of form elements was intentional on the part of the architect.

There is an element in this plan scheme which makes it exceedingly easy of verification. The large strip at the west end of the great rectangle, represented by $\cdot 264$, more accurately $\cdot 263962$, added to the strip immediately adjoining it to the east, exactly equal two squares. $\cdot 264$ plus $\cdot 236$ equals $\cdot 5$ or the reciprocal of two squares, one lying on the other. These two squares represent the area defined by the centres of the angle columns and the centres of the second columns to the east. But the west side of the porous stone base of the statue of Athena is fixed by a line drawn from centre to centre across the nave of these two second columns. This west side of the porous stone base is slightly uneven, due to the apparent fact that the masons preferred to cut them to fit rather than the pentellic marble blocks. Even a casual inspection, however, makes it clear that the west side of the porous base is on a line with the two column centres mentioned.

It is also clear by inspection that the width of this porous stone statue base is equal to one of the regular 236 intercolumniations. Precisely in the centre of this statue base is a rectangular hole which is generally admitted to be the centre of the Athena statue. If we draw a north and south line through

the centre of this hole we divide the .236 area into two equal parts. Divided by 2 the result is .118. If, to the rectangle to the west of the statue base composed of two squares and represented by the reciprocal ratio .5* we add .118 the result is .618 or a rectangle of the whirling squares—that is to say, the statue of Athena stood exactly on a side of a rectangle of the whirling squares, and this shape is defined by the centres of the columns surrounding the sacred spot.

One side of this rectangle furnishes a line cut in the traditional Greek proportion of extreme and mean ratio. Throughout the ages the story has been persistent that this ratio was used in temple building. Many attempts have been made to discover how the proportion was used, but they have all failed. It is now clear that it is a derivative of another and more important proportion—*i.e.*, root five—and, by itself, means little if anything.

Pushing our inspection of the cella proportions further, we may exclude or include the base blocks on which the columns stand. In either case we find the enclosed areas proportional arrangements of the basic form of square and root five and a definite symmetrical part of the cella or of the entire building. The entire cella proportion, from wall to wall east and west and north and south, is defined by the ratio 1.559. We may regard the fraction .559 either as one-fourth of root five or as a reciprocal of 1.7888. In the latter we have four times the reciprocal of root five. It should be remembered that a reciprocal shape is a similar figure, and that root rectangles are composed of even multiples of reciprocals—that is, even multiples of root figures or similar shapes to the whole. A root five figure is composed of five reciprocals, each one being a root five shape and having the fractional ratio .4472 or one-fifth of 2.236. Four times .4472 equals 1.7888. We see, therefore, that the entire cella plan is an arrangement of a square plus four root five rectangles. The length of the cella is 98.145 feet and the width 62.95 feet. These measurements give us the ratio 1.559. The wall to wall width of the cella is fixed by a sill or plinth block at the south-east corner of the room where a portion of its surface was cut away to receive one of the first stones of the wall. This sinking is not found on any other stone. It may also be mentioned here that the explosion of Turkish powder which destroyed the interior of the Parthenon seems to have spread the east end of the interior of the naos. Many measurements across the interior show that the east end is about one centimetre wider than the west end.

If we extend the column centre rectangle previously described to include the base blocks upon which the columns stand we have another scheme in square and root five. The ratio is 2.174 which, is composed of .559 multiplied by 2 plus .528 multiplied by 2. The .559 fraction will be remembered. The .528 fraction is a reciprocal of a square and two root five shapes—that is, .4472 multiplied by 2, or .8944 plus 1.

If we exclude the column bases and retain the nave only, which is beautifully defined as a sunken rectangle about three centimetres lower than the rest of the floor of the cella, we get the ratio 2.59017, the fraction being one-fourth of 2.36068. The nave ratio may be regarded as root five divided by 2—that is, 1.118 plus 1.472. This would be two root five figures plus a square and two .236 shapes. In both the above cases of exclusion or inclusion of the column base blocks the area in the rear of the porous stone base of the statue will be two squares, so we may, in either, check the scheme by this simple area. Consideration of the nave proportion emphasises a point of extreme interest which seems to be true of most if not all Greek buildings of the best period. This point is that the paving stones of the temples in their final position were cut more or less accurately to fit a definite proportion. The Parthenon nave is a good example. It is apparent by inspection that this sunken rectangle is divided, east and west, into six equal parts, and that the north and south divisions are two to every intercolumniation. Knowing the overall proportion of the nave, it is a simple matter to determine the proportions of each of the paving blocks. When this is done we again find a rhythm repeat of the entire scheme of the building. Also the paving block proportions over the entire ground plan may be examined in the same way.

* See last year's Paper: "Greek Design," by Jay Hambidge (JOURNAL R I B A, pp. 213 *sqq.*)

When we find one block larger or smaller than it should be we find that some kind of a compensatory allowance exists at some other spot.

† The overall proportions of the ground plan of the Parthenon may include the euthynteria, the bottom step, the middle step or the top step, in every case we find a definite arrangement of the basic theme analogous to that of the cella. The top step proportions exhibit the danger of hasty and ill-considered generalisations which have been prevalent in the past. Most writers about classic architecture seem to be fond of referring to the stylobate proportion of the Parthenon as 1 to 2.25—that is, one to two and a quarter. This is entirely misleading, as Dörpfeld found in his search for even multiple measurements and it results in an error which no one familiar with the building would tolerate. The ratio is 2.2514 plus. We are confident that this is the ratio, because we may place all the column centres of the peristyle by it and determine precisely its relation to the general and detailed proportions of the building.

From the data now at hand I am convinced that the proportion of the bottom step was the one actually used as a correlator. This ratio is 2.146. It is composed of .618 plus .382 multiplied by 4—that is, .618 plus 1.528. I wish to emphasise this latter proportion because of its definite appearance in the temple at Aegina and elsewhere. The fraction .382 is the difference between .618 and unity. It is also the reciprocal of 2.618 or 1.618 squared. The stylobate ratio of the Apollo temple at Bassae is 2.618. The stylobate ratio at Sunion is 2.309. The fraction .309 equals .618 divided by 2.

The proportions of the façade elevations of the Parthenon may be fixed either by the bottom step or by the euthynteria. The bottom step supplies the ratio 1.7236. The euthynteria, including width and height, has 1.7082. The fraction .7082 is equal to .236 multiplied by 3. The flank elevation is equal to 1.7082 multiplied by 2 plus .236. We may divide front or flank elevations by any logical member such as cornice architrave or stylobate, and in every instance obtain a definite and rational part of the major scheme. Likewise we may consider any detail by itself such as column or column head, the profile of the echinus, the abacus by itself, the metope or the metope and triglyph combined—in this case the mean metope width; the mutule with its guttae, the profiles of mouldings, the pattern forms on these mouldings, the coffers, singly or in groups, or the antafixae.

It is worthy of remark that the guttae of the mutules are arranged on a 1.559 scheme, that is this adjustment repeats the plan of the cella. Our limit of time this evening will not permit us to consider the construction of the antafix of the Parthenon. The same block of marble which contained the lion-head spouts at the four corners of the building also included an antafix carved in the same block. Fortunately, I was able to obtain rubbings of these as well as careful measurements. Modern designers have assumed that Greek meanders were laid out by a square with its area divided into even multiples. If the Parthenon is a standard, this practice is entirely wide of the mark. And, probably, just this point emphasises the difference between modern design thought and the practice of classic craftsmen. Before we can plan the double meander over the panathenaic frieze or the single meander under the cornice we must divide our areas into dynamic sections. And this means that the horizontal divisions are not the same width as the perpendicular divisions. The difference is slight and subtle, but it is just the difference between the best classic design and modern designers of England to-day.

The architect of the Parthenon, Iktinos, is known to have built another building in Greece, either before or after the construction of the great Athena building on the acropolis. This was the temple of Apollo Epikurios at Bassae in Phigaleia. The site is on the bleak and almost inaccessible Mount Kotylion in Arcadia. Fortunately the building is in a sufficiently good state of preservation to enable us to determine the symmetry of the ground plan and of the elevation as far as the architrave. A peculiarly happy chain of circumstances has thus resulted in the saving of two examples of the work of the man who is probably the greatest architectural designer in history and, as luck has it, these buildings are ideal examples for proportion comparison. Every student is familiar with the sophisticated curve system of the Parthenon. Indeed, so much has been written about these curves that the average

The stylobate ratio is 2.618, the reciprocal of which is .382.

38.324 divided by 2.618 equals 14.638, error .012.

The actual measured width of the stylobate varies between 14.60, 14.61 and 14.64, depending on whether the measurements are taken on the original stones or whether they include new blocks put in by the Greek Archaeological Society. We obtain the short measurements from the latter.

The length of the Naos is 28.07 \pm .

The width of the Naos is 8.66 \pm ; the ratio 3.236.

28.07 divided by 3.236 equals 8.674, error .014.

We find slight irregularity in all measurements of the temple, except very short ones, due to erosion and earthquake disturbance. The photographs show the shattered condition of many of the stones, particularly those of the steps of the west flank. The inequalities are more apparent than real, however, as the measurements show we can be fairly certain of accuracy within, say, 2 centimetres for long lines. This is sufficient to fix, unmistakably, the character of the plan, particularly when the sequence is maintained without variation as we here find it.

The length of the cella is 16.864, the width 6.822, and the ratio is 2.472, or a similar figure to the overall plan. It will be remembered that the dominating factor in the cella arrangement of the Parthenon is .236, or the difference between root 4 and root 5. If we divide the overall length of the Bassae plan by 2.36 we obtain the length of the cella. Likewise, if we divide the width by the 2.36 width of the cella is the result.

Before obtaining the Bassae data I was uncertain whether we had recovered the actual process that the Greek designers used in fixing their proportions. There was no doubt whatever in my mind about the proportions themselves; I was uncertain merely about the method of manipulation. Now I am convinced we have almost the exact process.

It may be said in passing that W. B. Dinsmoor, the American architect, has succeeded in obtaining accurate measurements of the earlier Parthenon—*i.e.*, the building which was in course of erection and was destroyed by the Persians when they took Athens. These measurements are:—

Length, 76.816.

Width, 31.39.

Resulting ratio, 2.4472,

or two squares plus a root 5 figure. It is interesting to find that this proportion is that of the great rectangle determined by the column centres of the Zeus temple at Olympia. 76.816 divided by 2.4472 equals 31.3893, error .0007.

The temple at Egina is older than the Parthenon, older than the Zeus building at Olympia, therefore the finding of a persistent dynamic proportion theme in the structure which is simply a variation of the themes at Bassae, Olympia and Athens suggests that symmetry schemes had some sort of ritual significance. And this is borne out by the record from India. About the time of the erection of the Greek temples of the best period, if not somewhat earlier, there existed in India specific rules for sacrificial altar construction. These have survived as the *Sulvasutra* or "rules of the cord," better "rules of rope." Some authorities date the *Sulvasutra* about 800 B.C. Others place it at 600, 500, 400 and even 200 B.C. The exact date is immaterial, as the point of importance for us is that these rules describe in detail the construction of the root rectangles which constitute the base of classic Greek proportion. Modern mathematicians—Heath in England, for example*—have wondered why the rope rules did not include rectangles higher than root 5. The explanation is that root 5 contains the secret of proportion; higher rectangles are unnecessary.

In addition to the description of root rectangles the *Sulvasutra* also gives instructions for fixing right angle triangles by numbers. The 3, 4, 5 triangle of course is well known. Historians tell us that

* See Heath's notes for the 47th proposition of the first book in his edition of the *Thirteen Books of Euclid*.

this triangle was used for fixing a right angle at a very early date in Egypt (see Gow's *History of Mathematics*; also Cantor's explanation of Egyptian Rope Stretchers). It is not generally known, however, that Pythagoras supplied a rule for the determination of right angle triangles by numbers, beginning with odd numbers, and that Plato, later, extended the rule to include "beginning with even numbers." The Pythagorean rule is to select an odd number, for example 3. Then to square it. From its square, 9, subtract unity and obtain 8. Divide this by 2 and obtain 4, the second term. To this add unity to find the third term 5. The Sulvasutra contains descriptions of the most important triangles derivable from this rule. This digression about rope rules and rope stretchers is for the purpose of emphasising the point that the stretcher was the ancient surveyor. His was the necessary preliminary work before any building of importance could be started. The first step toward the survey was the fixing of an orientating line to determine the axis of the building. This done, the need was imperative for the establishment of a line at right angles to it, and the process employed for this purpose was that for determining a right angle triangle by whole numbers: generally 3, 4, 5. A rope was divided into 12 parts. Three of these parts, or four, would be made to coincide with the orientating line. This was fixed by pegs. Four parts of the marked rope, or three, would be arranged so the remaining five parts would constitute the hypotenuse of the triangle. If this were carefully done the angle formed by the juncture or meeting of the three and four parts would be a true right angle. (See Sir Norman Lockyer's *Dawn of Astronomy* for descriptions of the Egyptian practice of fixing the four corners of the temple.) A survey prepared in this manner constituted the base for fixing the dynamic proportions which we find in Greek temples. All of these proportions follow naturally and simply from the right angle. A plan of the Bassae temple is a good illustration (Fig. 3). As mentioned above, the ratio of this proportion is 2.472. In Fig. 3 assume that A B is an orientating line of any length (in this case drawn from north to south, nearly). Let C F or C D be constructed at right angles to A B and be made the width of the temple. Construct the two squares C D and make A E equal to C D. The area A D will be that of a root five rectangle and be represented by the number 2.236. Make B C equal to C D and B F will be a root five rectangle. B E will equal .236, E C will equal 2, and A C .236. The total A B will be 2 plus .236 multiplied by 2 or the 2.472 proportion, and also equal to .618 multiplied by 4. A logical development of this base will result in the fixing of all the other proportions of the structure as we find them. The development of the Parthenon proportions or those of any other Greek temple of the best period will show that the preliminary survey is just as simple.

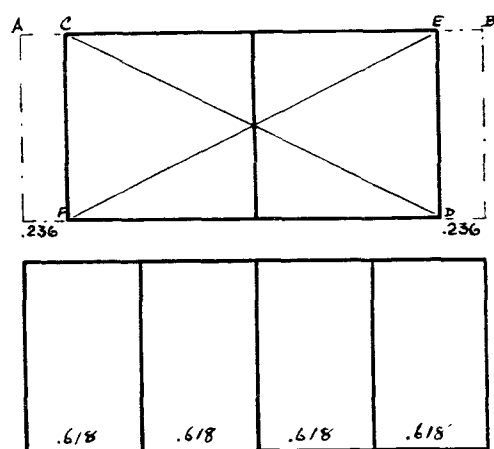


Fig. 3.—Preliminary Survey of the Bassae Temple

1.9635. This proportion is a compound of three 1.528 rectangles. It will be remembered that this 1.528 proportion was stressed in mentioning the ground plan of the Parthenon. The reciprocal of this shape is .6545, and this multiplied by 3 equals 1.9635. The natural division of this proportion would result in subdividing the area of the Aegina plan into a series of squares and root five figures from which the other proportions would follow. The length of the Naos is 22.785 and its width 8.27 metres. The ratio is 2.764, or four times .691—this fraction is the reciprocal of 1.4472, or a square plus root five. The error is 2 centimetres, using Furtwangler's measurements.

The length of the cella is 13.245, the width 6.38 metres, and the resulting ratio 2.073 or .691 multiplied by 3. Error, 9 millimetres.

Intercolumniation strips, centre to centre of the columns across the nave, 3.85 by 2.28, produce the ratio 1.691, or a square plus a square and a root five area. Error, 5 millimetres.

The nave, 12·945 by 3·05, supplies the ratio 4·236 or an area similar to one of the intercolumniation strips of the cella of the Parthenon. Error, 2 and $\frac{1}{2}$ centimetres.

The rectangle from the cella, including the column bases and full length, 13·245 by 4·65 metres, has the ratio 2·8541, or a similar shape of the Naos of the Zeus temple at Olympia. Error, a centimetre. This proportion is equal to root 5 or 2·236 plus ·618.

For the temple at Sunion we may, as we do at Olympia, take Dörpfeld's figures.

The length of the Sunion stylobate is 31·15 and the width 13·48, and resulting ratio 2·309. Error, 1 centimetre. The Greek Archaeological Society, by Mr. Orlandos, verifies Dörpfeld except in the figures for the width, which he makes slightly narrower. The difference is unimportant.

2·309 minus ·618 equals 1·691, and plus ·309 it equals 2·618, or the stylobate proportions of the Bassae temple. 2·309 minus ·236 equals 2·073, or ·691 multiplied by 3. (See Ægina.)

The overall plan for Sunion is 32·87 by 15·20 metres, and the ratio 2·163 or 1·691 plus ·236 multiplied by 2. Or, again, 2·8541 minus ·691. Error, 7 millimetres.

Other prime dynamic compounds into which this area might be sub-divided are :

1·309 plus ·854

1·236 plus ·927

1·118 plus 1·045

1·854 plus ·309, etc., etc.

Naos length 20·97 and width 8·32 : ratio 2·5202. This is a compound of 2·073 plus ·4472—i.e., ·691—multiplied by 3 plus root five.

Bottom step length, 32·67 : width, 15·00 metres. Ratio, 2·177. This is composed of 1·559 plus ·618 (see Parthenon cella for 1·559, a square and 4 root five areas. Error, 1 and $\frac{1}{2}$ centimetres.

The scheme of the plan of the Zeus temple at Olympia, as Dörpfeld worked it out in his search for even multiples of Greek feet, Æginetan, Solonian or Olympian, has a much superior dynamic interpretation than that furnished by the German scholar. I may digress at this point to give a slight description of Greek feet. The first unit of measure which seems to have come into general use in Greece modern scholars call the " Æginetan foot." It was part of a system of weights and measures obtained by Ægina from the Asiatic mainland, and was the standard unit of length used at Athens before the time of Solon. When that statesman undertook to draft laws to relieve the Athenians of the intolerable burden that the existing laws imposed on them and made so many of them debt prisoners, the old foot was shortened and the weights reduced. The newer shortened foot is now known as the Solonian foot. Several years ago the German archaeologist, Dörpfeld, conceived the idea that we should be able to find old Greek units of measure, in whole or multiple parts, in the surviving architecture. He displayed much ingenuity in developing this notion, but, in my opinion, failed because he was unable to determine the precise length of either the Æginetan or the Solonian foot. The former is supposed to stand to the metre as ·328, or ·327, or, possibly ·326 or even less. All of these lengths are necessary in the many different examples given as evidence of its presence. As an illustration : Dörpfeld fixes the height of the Parthenon column as 10·44 metres. It would be closer to the fact if it were 10·438 or less. This is assumed to be exactly 32 Æginetan feet. This would make the foot less than ·326. The width of the nave is given as 9·82 metres. Out of a number of measurements I found 9·82 but once : all the rest were slightly less. The mean is a little greater than 9·818. The length 9·82 is supposed to be precisely 30 Æginetan feet. But this requires more than ·327. This small fractional difference in short lengths might be disregarded, but for great distances it could not be accepted. However, for avoidance of argument, we may admit that the Parthenon column is exactly 32 Æginetan feet high. What, then, of the other measurements of the building ? Ninety per cent. or more of these would be incommensurable with the 32 feet. The only complete explanation of this incommensurability, so far advanced, is that furnished by dynamic symmetry. Dörpfeld had this column height in mind when he measured the Zeus temple at Olympia. The intercolumniation measurements of this building on

the flanks are remarkably close to one-half the height of the Parthenon column or indeed to one-half the height of the Zeus column itself. With this in mind, Doerpfeld actually gives 5.22 metres for each flank intercolumniation on his drawing of the plan; but, in a less conspicuous place, he places a plus or minus quantity to be added or subtracted from each 5.22 figure. The average reader, glancing at the plan, sees only the two long rows of 5.22 figures and thinks it a brilliant exposition of scholarly research. As a matter of fact, when we add and subtract these plus and minus quantities we find that one side of the Zeus temple is over 45 centimetres longer than the other. This irregularity is due to earthquake disturbance, from which the building has suffered much. Doerpfeld, however, is not discredited. I mention the matter as an illustration of the handicap of a theory. Having worked against this handicap I can sympathise with other sufferers. It is because of this that I use the measurements of other investigators whenever possible. If privileged to use my own data I could, in most cases, reduce the errors I have mentioned if not entirely remove them.

The mean flank intercolumniation of the Zeus building is 5.217 metres. This agrees better with Döerpfeld's conclusions than does 5.22. I am really of the opinion that the flank intercolumniation was intended to be one-half the column height. This would give it a row of root 4 areas, defined by the column centres, architrave and stylobate, for each flank of the building and, also, would fit the dynamic condition made by the narrower column adjustment at the corners.

When the Zeus temple is measured through the centre, east to west and north to south, the results agree very closely with those obtained by Doerpfeld, so we may proceed with the dynamic arrangement of the plan units.

Euthynteria length, 66.64, and width, 30.20. Resulting ratio, 2.206. Error, less than 1 centimetre. This ratio is a compound of 1.382 plus .824, an important proportion found in the Parthenon.

Naos length, 46.84; width, 16.39; ratio, 2.8541. Error, 2 centimetres. Ratio, a compound of root 5 plus .618.

The entire interior of the cella seems to be a simple root five area with an error of 1 or 2 centimetres. This interior, however, is in a bad mess and extremely great accuracy is doubtful.

The great rectangle made by the column centres has been figured out by Dr. Caskey, who helped me this winter at Olympia in a re-examination of the building. The length of a side of this rectangle is 61.70. At the east end it is 25.24 metres wide and at the west 25.16, average 25.20. The ratio is 2.4472, or two squares plus a root five rectangle (see the proportion of the older Parthenon). 61.70 divided by 2.4472 discloses an error of about half a centimetre.

The bottom step ratio is 2.2236, or two squares plus .4472 divided by two.

The stylobate length is 64.12; width, 27.68; resulting ratio, 2.3166; error, 3 millimetres. This proportion is a compound of four root five rectangles plus a .528 shape, more accurately .5278. This latter fraction will be remembered in connection with the 1.528 proportion of the Parthenon and of the Ægina temple.

We might continue our inspection of these dynamic proportions until every square inch or cubic inch of the buildings were explained, but our limit forbids. I have purposely left out consideration of the elevations as any one familiar with the principles of projection will understand that the two-dimensional plan is of first importance. If the elevations are proportionate with the ground plan, and they are as far as we are able to proceed with the material as it has survived, then the solid is proportionate.*

* Some notes on this lecture, and a brief reference to the discussion which ensued, were published in the JOURNAL for 5th March, pp. 266-67.

CAPITALS AND BASES: A THEORY OF THEIR EVOLUTION.

By F. WELMAN.

GENERAL.

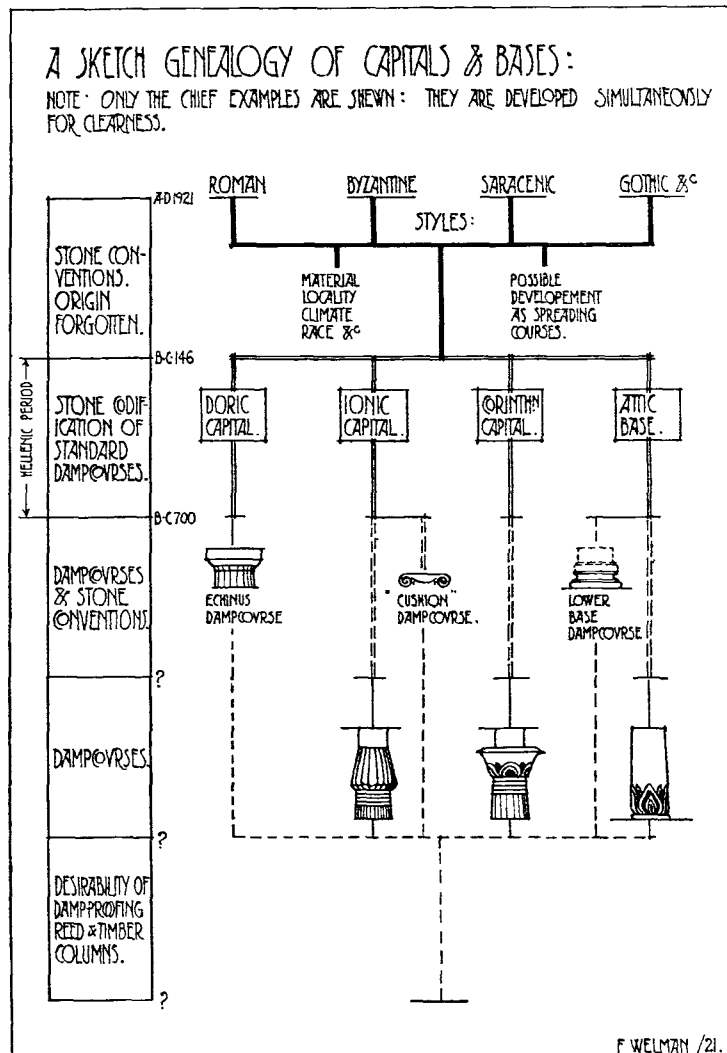
THE presence of the earliest capitals and bases may almost be said to denote the beginnings of architecture, whilst the field of their application is extensive, in regard both to time and place. In some form or other they have been adopted by every established school of design, and their contemporary use is practically universal. Their detailed history is long and complicated, but in respect of an omission it differs from that of nearly all other architectural features. It does not include an authentic genealogy of their forms, or even hint at a reason for their existence. Various theories, based on historical data, have been advanced to account for them, but the evidence available for the purpose is too slight to be conclusive. In default of actual information, however, a genealogy may be evolved by a process of inference and deduction based on an analysis of the members themselves. The conclusions thus derived may be verified within limits by a comparison with known facts.

THE ANALYSIS.

Architectural features with a high persistence are generally attributive to a primary function, and capitals and bases may be investigated for indications of that origin. The only function they could exercise in a stone construction is that of spreading courses. In view of their normal inadequacy in that respect, however, it is obvious that they were not designed for the purpose, and they cannot be regarded as "attributive" to it. Thus, as capitals and bases are not accessory to a stone construction, it is assumed that they are reproductions of members accessory to the prototype construction of reed or timber columns. The function of members at the extremities of such columns would obviously be that of damp-proofing, and therefore it is concluded that the primary "capitals" and "bases" were dampcourses, and that stone examples are the later conventionalised reproductions of the same.

THE INDICATED PROTOTYPES.

The nature of the prototypes, as indicated by these conventions, is that of a bituminous cement, applied hot, in a semi-fluid condition, localised in adequate bulk by strips of woollen fabric and ultimately setting



hard. In short, the primary dampcourses are indicated to have been "puddings" of bitumen.

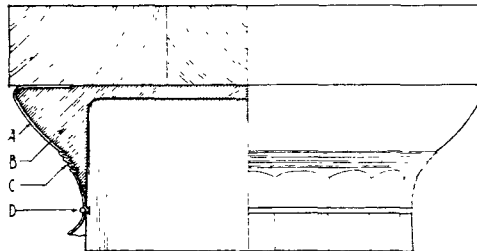
CORROBORATIVE EVIDENCE.

In default of records, the circumstantial evidence is

THE PROTOTYPE DAMPOVRSES OF THE CAPITALS & BASE OF THE GREEK ORDERS.

Note: Diagrams are not to scale. They do not represent actual examples, but only the basic features in approximate proportion.

THE DAMPOVRSE OF THE DORIC CAPITAL

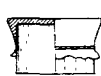


- A Woven fabric of echinus
- B Bitumen dampproofing
- C Angular creases in fabric due to settlement of echinus under weight of abacus etc. ("Paquelets")
- D Binding cord & fabric in groove isolated from bitumen subsequently decaying & exposing growing ("hypocaustation")

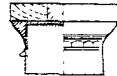
THE CONSTRUCTION OF THE ECHINUS.



Fabric strip bound around column by cord in groove

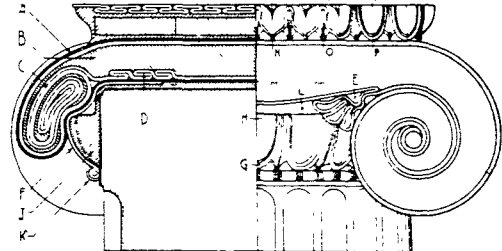


Fabric held away from column tied up with bitumen & loaded over

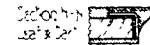


Fabric superimposed on echinus & angularities formed

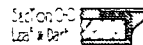
THE DAMPOVRSE OF THE IONIC CAPITAL



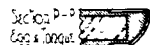
- A Substructure setting for weight of cushion fabric
- B Bitumen dampproofing of cushion
- C Woven fabric strips of cushion
- D Fabric fabric on other side of cushion (both protected only)
- E Bitumen loads of 10 forming "lower ornament" or "padding"
- F Fabric of echinus loaded vertically
- G Binding at bottom of echinus
- H Binding as defense at top
- I Bitumen of echinus
- J Binding cord for echinus with gaskets of fabric around it (beads)
- K Fabric coated from bitumen subsequently decaying & exposing characteristic "hat" top of echinus



Section H-H
Fabric strip bound around column by cord in groove

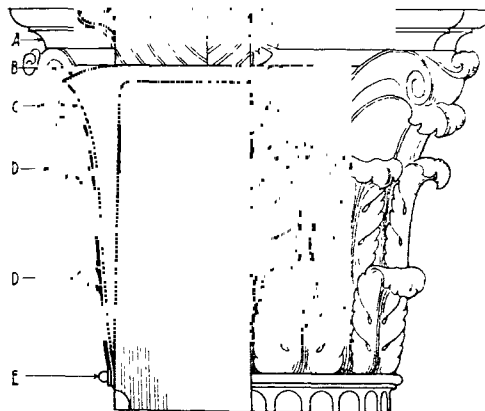


Section O-O
Fabric held away from column tied up with bitumen & loaded over



Section P-P
Fabric superimposed on echinus & angularities formed

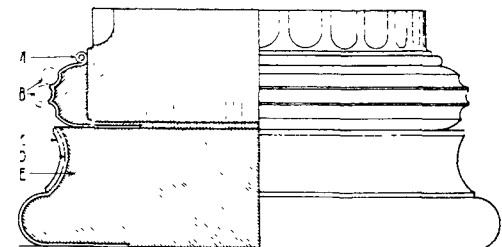
THE DAMPOVRSE OF THE CORINTHIAN CAPITAL



Note: Owing to the inclusion of foliage this system is indicated for development on basis of free decorative effect

- A Abacus molding with reinforcing band highly conventionalised & considerable only on broad lines
- B Bitumen dampproofing spreading to edge of echinus at a natural pattern
- C Fabric of echinus (beak)
- D Reinforcement of leaves to echinus
- E Binding cord for echinus & reinforcement

THE DAMPOVRSE OF THE ATTIC BASE



- A Binding cord wrapped in upper edge of fabric around column
- B Temporary binding with rope to retain level of bitumen around column whilst setting
- C Scalloped band reinforcement to fabric of base casing
- D Fabric of base casing
- E Bitumen dampproofing

THE CONSTRUCTION OF THE BASE.



Fabric base casing reinforced by "scalloped" band & filled up with bitumen



Fabric casing for column superimposed & bitumen poured in



Column inserted, fabric casing bound around it, & rope binding added.

THE PROTOTYPE DAMPCOURSES OF THE CAPITALS & BASE OF THE GREEK ORDERS.

NOTE :- MODELS CONSTRUCTED IN FABRIC, WITH CLAY IN LIEU OF BITUMEN DAMPPROOFING.

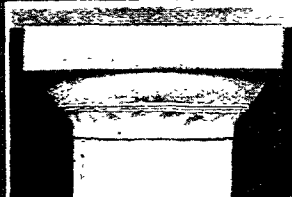
THE DORIC CAPITAL.



THE HEAD OF THE COLUMN.



THE ECHINUS.



THE COMPLETED CAPITAL.



LEAF & DART MOULDING.

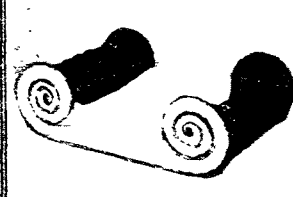
THE IONIC CAPITAL.



THE HEAD OF THE COLUMN.



THE ECHINUS.



THE CUSHION, VOLUTES, &c



THE COMPLETED CAPITAL (FRONT)



THE COMPLETED CAPITAL (SIDE)

THE CORINTHIAN CAPITAL.

(THE ESSENTIALS OF THE SYSTEM ONLY)

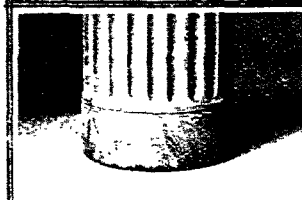


HEAD OF COLUMN.



COMPLETED CAPITAL

THE ATTIC BASE.



THE FOOT OF THE COLUMN.



THE COMPLETED BASE.

consistent with this conclusion. Thus the salient features of certain stone examples are characteristic of a semi-fluid retained by a somewhat elastic membrane, and they may be "turned back" into dampcourses without a change of essential form. Indirect support is also provided by the following circumstances:—

The early use of reed or timber columns under conditions indicating a desirability for damp-proofing.

The use of bitumen in early building construction.

The use of woollen fabric in early times.

The liability of the early columns to destruction by fire.

THE EVOLUTION.

The effect of the origin upon evolution would normally be affected by the loss and recovery of the generating idea, by the possibility of developing stone capitals and bases as spreading courses, and by the factors that influenced other architectural features, such as locality, material, climate, tradition, religion, wars and invasions, etc.

THE RECONSTRUCTED EXAMPLES.

The dampcourse systems represented by stone conventions are broadly summarised in the capitals and bases of the Greek Orders. These members practically epitomise the whole art and practice of the dampcourse. They appear to be conventions of bare mechanical essentials, and as such may have been based on an analysis of the standard dampcourses, rather than on preceding stone forms. They are the last examples to indicate the conscious use of such an origin, and the first to be widely adopted as arbitrary decorations. In the latter capacity they constituted the basis for all succeeding designs in the Roman, Byzantine, Saracenic, Gothic and other styles. For those reasons the systems they represent are reconstructed in the following notes and diagrams.

THE DAMPCOURSE OF THE DORIC CAPITAL.

General.—There is very little evidence of this system before the Greek era, and it may be of early Greek origin. It was the last to make an appearance, but the first to be conventionalised as a Greek capital. This is a logical sequence, as the current local dampcourse would normally be the first to undergo that process. As a mechanical proposition it is the most advanced of the three capital systems.

The Construction.—The construction is indicated to have been as follows: a plain, unpleated strip of woollen fabric was wrapped closely around the head of the column, the upper edge projecting well above it, and the lower one bound around it by a cord in a groove, or grooves ("hypotrachelion"). The strip was then strained outwards at the top and hot bitumen was poured over and around the head of the column, filling the annular trough formed by the fabric and rising above the top of the column to the required level. When the correct amount of bitumen had been poured in, the upper edges of the fabric strip were folded over it. The timber abacus was superimposed

whilst the bitumen was soft, and its weight caused a slight settlement in the dampcourse. The upper part was thus further distended by the bitumen expressed from the top of the column, whilst the lower part was "telescoped" and developed the series of annular creases and wrinkles known as "annulets."

The Annulets.—The character of these annulets depended largely on the elasticity of the fabric. With a high degree of elasticity the fabric could expand outwards to accommodate the slack, and the creases were then few in number, but large. Thus the capital of the Temple of Ceres, with an echinus of the greatest relative projection, has two large annulets. With a low degree of elasticity, the slack was more easily accommodated by the formation of fresh wrinkles, and the creases were then more numerous, but smaller. Thus the capital of the Parthenon, with an echinus of the least relative projection, has five small annulets.

The Hypotrachelion.—The cord and the fabric about and below the grooving were practically isolated from the bitumen, and subsequently decayed, leaving the grooving exposed.

Alternative Binding.—The capitals of the Temple of Ceres represent the fabric as retained by a band in a semicircular sinking, instead of by a cord in a groove, but apparently the method was not widely adopted in later work.

THE DAMPCOURSE OF THE IONIC CAPITAL.

General.—The echinus of this system was represented in the Egyptian "lotus bud" capitals. Those members presumably conventionalised the method as applied to reed columns, where an elongation of the damp-proofed area would assist to bind the reeds together and allow the interstices to be filled up. The Ionic echinus represents its application to a timber column.

The Construction.—It consisted of a woollen strip, pleated vertically, projecting well above the head of the column and bound around it by a cord. This cord was wrapped in the lower edge of the fabric, which formed gathers or "beads" around it. There was no necessity for anchorage in a groove, as this echinus was not strained outwards to receive the bitumen, but expanded easily, owing to the vertical pleating. Hot bitumen was poured over the top of the column and drained into the echinus, and when the latter was partly filled the upper edge of the fabric was folded over the bitumen on the top of the column.

"Egg and Tongue" Moulding.—The fabric behind the external vertical folds bulged out between them and formed the "eggs," whilst the external folds were squeezed together into creases and formed the "tongues." As the echinus was only partly filled, the fabric between the bitumen and the top of the column was isolated and subsequently decayed, exposing the flat top of the bitumen, a characteristic feature in the stone conventions.

The "Cushion."—The small amount of bitumen re-

tained on the top of the column by this echinus was augmented by a supplementary dampcourse, represented by the "cushion." This consisted of a layer of bitumen between two or more long strips of fabric, the ends of this "sandwich" being rolled up to retain the bitumen and prevent the fraying of the fabric. The excess fabric on the inner and shorter side of the rolls was folded and tucked in between them and the flat part of the cushion, and externally formed the "flower ornament" or "palmette." The cushion was placed on the top of the column, the rolls being supported by strips of belting which encircled the whole member.

"*Bead and Reel.*"—The fabric of the sandwich was squeezed out between the strips of belting into ridges, which formed the "beads" of the "bead and reel" cushion (Erethium).

"*The Volutes.*"—The middles of the rolls were constricted by the belting which accommodated the full diameter of the echinus at those points, but the outer edges of the rolls were free to expand and droop and formed the "volutes."

"*Abacus Mouldings.*"—Two methods of damp-proofing the abacus are associated with this system. They both consisted of pleated packing strips, which ensured an adequate depth of bitumen and retained the expressed surplus. They are represented by the mouldings of the "egg and tongue" and the "leaf and dart." The construction of the former is practically that of the echinus applied to a straight edge, but that of the latter differs in principle. The pleated strip projecting over the edge of the abacus did not enclose the expressed bitumen, but retained it in its folds. The "leaves" were formed by the bitumen expressed over the underlying folds, and the "darts" by that expressed under the overlying ones.

"*Variations.*"—There are many forms of the Ionic capital, but they are all broadly illustrative of the system outlined above. In the case of those of the Erethium the decorative elaborations are based on constructive elaborations.

THE DAMPCOURSE OF THE CORINTHIAN CAPITAL.

"*General.*"—This echinus was represented in the Egyptian "lotus flower" or "bell" capitals. As a mechanical proposition it is the crudest of the three capital systems, and presumably the oldest.

"*The Construction.*"—It consisted of a plain woollen strip, the upper edge level with the top of the column and the lower one bound around it by a cord. It formed an annular trough for the bitumen: the upper edge, however, was not folded over it, but "belled" out like an oversailing course or bracket around the column. The semi-fluid bitumen poured over the column worked out to the edge of the "bell" at a "natural batter," and the depth that could be maintained over the column was thus dependent on its projection. In order to provide for this, the echinus was made very deep, and as it was not supported from the top of the column, it was reinforced by leaves, which

were bound around it by the cord at the lower edge of the fabric. This reinforcement of leaves prevented distortion and settlement whilst the bitumen was setting. Owing to its inclusion, the system lent itself to development for high decorative effect in which the expression of function played a secondary part. Thus, whilst the above-named features are suggested in the Corinthian examples, they are there treated in a free and highly conventionalised manner and the abacus is modified to harmonise with them. The preceding Egyptian examples, however, are more expressive of primary function, and in the majority of cases the abacus is a plain square block that just covers the top of the column.

THE DAMPCOURSE OF THE IONIC AND CORINTHIAN BASE.

"*General.*"—This dampcourse consisted of two parts. The upper part received the foot of the column and the lower part formed a supplementary pad for it to stand upon. The upper part is represented in Egyptian and Persian bases, but the lower part appears to have been evolved in the Greek era.

"*The Construction.*"—This lower part was virtually a shallow fabric pan, reinforced by an encircling band ("scotia") and filled up to the brim with bitumen, which set flat and level. The fabric below the scotia band was distended by the bitumen, and is represented by the lower "torus." The upper part of the dampcourse was another shallow pan, placed on the bitumen in the first. The foot of the column was inserted, bitumen was poured around, and the fabric pan was bound around the column by a cord wrapped in its upper edge. In order to retain the level of the bitumen whilst setting, this member was apparently supported by a temporary binding of rope, which on removal left the annular grooves represented on the upper "torus." In the bases of the Erethium a band of webbing is conventionalised as an alternative to the temporary rope binding.

CONCLUSION.

The foregoing reconstructions are based upon assumptions which may be recapitulated thus:—

- (1) Early prototype columns of reeds or timber.
- (2) Contemporary use of bitumen.
- (3) Prototype columns dampproofed with bitumen.
- (4) Dampcourse forms reproduced on later stone columns.

To these assumptions is now added the *fact* that the indicated dampcourses normally exhibit the characteristic features of their representative "capitals" and "bases," as will be seen from the accompanying photographs of models.

The potentiality may be regarded as a coincidence, but it seems perfectly logical to accept it as an endorsement of the assumptions.

CORRESPONDENCE.

Unification and the Institute.

St. John's Wood, N.W., 8 Oct. 1921.

To the Editor, JOURNAL R.I.B.A.—

SIR.—I have recently seen, and read with interest, the letter signed by Mr. Perks and Mr. Hubbard indicating that steps are being taken to oppose irregular additions being made to membership of the Institute on the plea that such a course is necessary to effect unification of the profession, which latter, in its turn, is presumed to be essential to obtain the registration of architects.

I am not sure (and probably not many are) as to what unification of the profession means in the sense now under discussion: I am equally not sure that, if it is what I take it to be, it is a particularly desirable thing. On the other hand, like many others, I am confident that such objects as appear to be under consideration do not form a legitimate excuse for attempts to alter the character of the Institute or for going back on the valuable root principle on which it was founded. We are told that even if the course proposed to be taken has disadvantages it will at least be a step towards registration—the creation of a new architectural paradise to evolve which any line of action would apparently be justified. We can, with more than equal reason, assert that—as affecting the Institute—it would not be either justified or excusable. If a Registration Bill ever passes through Parliament (which competent persons have advised is a very remote possibility) probably nothing will be effected but a change of name. Incompetent and tasteless architects and builders will remain, under whatever new designation they might continue, to spoil our towns or countryside. Is that the sort of change, then, that we are to imagine will advance architecture? For if such a claim cannot be made, what has the question *per se* to do with the Royal Institute? Do some of our members need reminding that the Institute was founded for the advancement of architecture and the acquirement of knowledge relating thereto, as its Charter states in quite clear terms: that it has steadily kept this aim before it hitherto and by it built up a definite position as a learned Society: that the adhesion of its members has been obtained, in good faith, on the understanding that the qualifying standards laid down would be maintained for all who joined its ranks, certifying to the fact that it stood for high aims and achievement as its founders had intended? Is all this to go now in pursuit of what, at its best, is a very uncertain advantage? I do not really think so. Not all of us are so affected by the imagined benefits of a new system as to be willing to drop the real merits of the old, and with it to throw the Institute overboard if necessary.

Perhaps, after all, the foundation on which the Institute rests—the great principle for which it stands and from which its essential value is derived—may prove to be not so easily overturned as some may

think. Possession of a Royal Charter, in itself, involves responsibilities that cannot be lightly set aside. A comprehensive system of architectural education, such as we see hopeful signs of being now in evolution, may effect much that is desirable, and can hardly do other than assist the objects for which the Institute exists. But that is quite another matter.—Yours faithfully,
FREDK. R. HOBBS [F.].

The Government's Future Housing Policy.

17, Pall Mall, East, S.W.1.

6 Oct. 1921

To the Editor, JOURNAL R.I.B.A.—

SIR.—In his letter, dated 30th August, appearing in the last issue of the JOURNAL, Mr. Durlacher, referring to my letter dated 26th July, suggests that "condemnation of the Government Housing Scheme by the Council and individual architects should be supplemented by some alternative scheme under which they could guarantee that the houses would be forthcoming."

With the object, therefore, of stimulating thought upon this problem, and with no claim to having solved it, I venture to put forward certain reflections and suggestions induced by my participation in the execution of the Government Housing Scheme.

If the housing problem is less conspicuous at the moment than heretofore, it is not because the need for houses has been met. The evils attendant upon insufficient housing are still at work—marriages are postponed, families are restricted, home life is unattractive, discontent is rife, and the need for more houses is probably as urgent to-day as it was two years ago.

It is not easy to imagine that anyone conversant with the methods and mentality of the Ministry of Health can contemplate without dismay the prospect of further enterprise by the Government in this direction, and although a sufficient State subsidy on buildings (if not restricted to a size beyond the means of the average wage-earner, or insufficient to the needs of most middle-class families) would undoubtedly produce the houses required, such an expedient is contrary to the ultimate interests of the nation.

We have watched with complacency the gradual extinction of the speculating builder, but I suspect that he may be as essential to the community as the speculating bootmaker, in any case, pending the discovery of other means to a solution of the problem. I, for my part, would urge his resuscitation.

We may dislike his bay windows, and deplore his independence of our offices, we may claim that his suburban terraces are stultifying alike to mind and body, but we cannot blink the fact that it is to him we owe the houses in which we have been able to live in some degree of comfort and decency, and at rents proportionate to our means; it is, moreover, possible that contemplation of our State-built houses may have induced in him some knowledge of the methods by which their high standard of beauty has been attained.

Rid at last of the Finance 1910-11 Act incubus, private enterprise in building is still smothered beneath a number of disabilities, and though the suggestions for their removal formulated hereunder may be deemed impracticable, I commend their consideration to all who are interested in a revival of the building industry.

1. *Bye-laws Affecting Buildings.*—These should be standardised and shorn of all conditions unessential to the safety of the community. Pending such revision, all buildings designed and supervised by a member of the Institute or Allied Body should be exempted from their scope, subject to appeal by local Authorities to a tribunal appointed for this purpose.

2. *Excessive Rates and Taxes.*—All new houses, not exceeding a specified size, commenced and completed within the coming year should be exempt for a period of three years.

3. *Competition with the Uneconomic Rent.*—Rent restrictions should be withdrawn, and all houses erected under the Government Scheme should be sold, their value first being enhanced by exemption from rates and taxes, as above.

4. *Lack of Capital.*—State loans should be made on easy terms.

5. *Scarcity of Materials.*—The unemployed should be concentrated upon the quarrying of stones and slates, and upon the making of bricks, cement, tiles and other building materials.

6. *Scarcity of Skilled Labour.*—Apart from joinery, which can be obtained ready-made, and plumbing, which should be inconsiderable, houses of the type most needed can be built from start to finish by the combined efforts of any able-bodied men and women possessed of ordinary intelligence.

7. *High Cost of Labour and Materials.*—With the removal of the disabilities mentioned above, it is probable that speculation in building might be resumed profitably with prices and wages at their present level. The adoption of suggestions 5 and 6 would result in a further decrease in the cost of building now manifest, and with the necessity for increased transport of materials, lower rates for this should be obtainable.

8. *The Stigma Attaching to the Honest Acquisition of Wealth.*—It would be difficult to overstate the disastrous effect upon enterprise of this insidious canker. No sane man is wholly without the desire for the respect of his fellows, and so long as the measure of financial success shall be accepted as the measure of industrial iniquity, undertakings involving the payment of wages will become increasingly repellant. It will take time to restore to successful enterprise the dignity and respect due to all who build and maintain the industries upon which we depend for the necessities and comforts of life, but the first step in this direction will have been taken when we cease to whine about the "profiteer," whose welcome death was coincident with the firing of the Armistice gun; and when we realise that it is upon the wealth of the

manufacturer and merchant that we depend for a plenitude of cheap commodities.—Yours faithfully,

JAMES RANSOME. [F]

Holt, Norfolk, 27 Sept. 1921

To the Editor, JOURNAL R.I.B.A.,—

SIR,—Everyone will agree that destructive criticism is useless without an alternative based on practical possibilities, but before attempting to evolve a sound substitute the essential facts must be grasped.

The policy of taxing improvements in the form of building was condemned from the first by all who were far-sighted enough to realise the ultimate result. Practically every report made by a Royal Commission or Departmental Committee for the past 20 years has, voluntarily or involuntarily, furnished statistics and data which showed we were drifting to a housing crisis. Add to this the opinions of men of experience, and a little common sense reasoning, and it should be apparent that nothing but a change in our system of local taxation could save the building trade.

Mr. Lloyd George, as proved by his speeches, has long been aware of the effect of the existing rating system, and has condemned it in no uncertain terms. Speaking at Middlesbrough in November 1913 he said: "The worst of the present system is that the moment a man begins to improve his property he is fined as a ratepayer. . . . THAT is the rating system of England."

There is nothing new in the policy of exempting or partially exempting buildings from taxation, and the results have been satisfactory in parts of our colonies and the United States. In New York, since the exemption law came into force last February, over 20,000 homes for families have been commenced or planned up to the end of July, as compared with the 6,000 for a similar period in 1920. What is to prevent us from solving our housing (including "workmen's dwellings") problem by following New York's example, without the necessity of subsidies, doles and "compound interest miracles" of finance? Why should not local authorities be at once relieved of poor relief, education, roads, police, and other national service rates, and only be left to deal with purely local matters?

There need not necessarily be much, if any, interference with the present administration of local government, which is very good indeed, apart from the arrangements for financing it.

It cannot matter whether we pay in rates or taxes if the amount is the same, and a graduated tax taking into consideration ability to pay is infinitely better than the unfair and unsound existing rating system, by which we are losing tens of millions in annual value of created wealth, and regular employment for some hundreds of thousands of skilled and unskilled workmen. The poorer the district the higher the rates and with higher rates the more impossible it is to deal with slums and bad conditions of living. The grants to unemployed persons to pay rent and RATES, which necessitates further raising of the rates to pay for the

grants, is the climax of the "vicious circle," and proves the failure of the system by *reductio ad absurdum*.

Surely the necessary legislation can be carried out in a reasonable time, if only as a solution to unemployment.

Many local authorities have sites lying idle through the abandonment of the "housing scheme." Why not immediately give them powers to lay roads, streets, drains, and generally develop the land for building sites, to sell, or let on long leases for building, houses which are exempted from rates? This would be a practical step to relieve unemployment, and give the much-needed stimulus to private enterprise in building. Moreover, the capital outlay would not be thrown away, and there is no reason why such a scheme should not be made economically sound. At least it is well worth trying.

Prices will not come down to an economic level until there is competition, and there will be no real competition until building is made economically possible.

The existing crisis is not the result of the war, but is caused by our apathy in the past and our slowness in applying the remedy.

E. G. HOLTON [F.].

Mr. Northover's Retirement.

4, Raymond Buildings, Gray's Inn, London, W.C.1.
3 October 1921.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I should like to be allowed to add a few words to Mr. Waterhouse's graceful farewell to Mr. Northover.

As President during the first three years of the war, I was constantly under the apprehension of losing Mr. MacAlister, and no one who has not been President, especially during war-time, can know what a support it is to have a secretary who is thoroughly conversant with Institute matters and traditions and whose clear judgment and assistance is always loyally at his disposal. Some time in 1916 when, apart from the Institute, my time and energies were rather strenuously engaged Mr. MacAlister, after repeated rejections, was accepted for the Army, and I found myself, at a very difficult time, deprived of his invaluable help. It was at this dark hour that Mr. Northover, I was going to say leapt into the breach, but it would be more true to say that he simply appeared, without flourish of trumpet or beat of drum, and whenever any knotty point had to be considered he was always at hand to assist with sound and mature judgment and helpful suggestion. He prepared agendas, attended all Council meetings, and in fact quietly took over everything, including the President, without fuss or friction. All this was in addition to his usual work. The strain must have been very great, but although he sometimes appeared worn, he was never flurried.

I want to take this opportunity of his retirement to tell him how deeply I appreciated his invaluable help

during a very difficult time. I hope I did not add unnecessary weight to his already too heavy burden.

Unlike Mr. Waterhouse, I cannot claim that Mr. Northover has shown me any special consideration in regard to literary contributions to the JOURNAL, as they have been very few and always of an official character such as an Editor has to pass, though with a sigh perhaps, but if he has not altogether relinquished the reins I would ask him to be indulgent to this little personal tribute and not to live up to his reputation for modesty by blue pencilling all that refers to himself.—Yours faithfully,

ERNEST NEWTON [F.].

"Dell View," Hitchin, Herts.

1 October 1921.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—Mr. Waterhouse, in submitting to readers of the JOURNAL a personal proposal of a vote of thanks to Mr. Northover, safely predicts that we shall accord our votes in favour with ungrudging if silent, acclamation. Silence may give consent, but I venture humbly to anticipate that I shall be by no means the only one desirous of acclaiming openly our entire and enthusiastic agreement with the proposal.

If I now refrain from rushing in with further tribute to our friend's worth, let my hesitancy be set down to a feeling of satisfaction that our President, divesting himself for the occasion of his official halo, has so happily given expression to what so many of us must have been wanting to say.—Yours,

WALTER MILLARD [A.].

To the Editor, JOURNAL R.I.B.A.,—

6 Oct. 1921.

SIR,—Mr. Waterhouse helps us signally with the tribute and a personal proposal of a vote of thanks to Mr. Northover to mark our high appreciation of his valuable services for many years, chiefly in editing this JOURNAL, but silently in various other ways, and conspicuously in performing the duties of the Secretary of the Royal Institute at very real personal sacrifice during the years of the war.

Mr. Northover is an old friend, and perhaps I may be permitted to have the great pleasure of expressing complete agreement with the proposal while rejoicing in the knowledge that he will now be free to rest and have leisure for his own pursuits.

It is pleasant to participate in the general kind feeling and good wishes for our friend, whom we esteem for his willing and helpful disposition and fine sense of duty.

HARRY SIRR [F.].

The Institute Journal.

6, John Street, Bedford Row, W.C.1.

11 Oct. 1921.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—I feel impelled to write to you about the Institute JOURNAL, not so much about its contents, although I believe much could be done to make it more dignified and worthy of a Royal Institute in this respect, but as regards its cover, which has somewhat recently changed its form.

Neither the old nor the new cover is satisfactory in design, even from the point of view of advertisement. Many a trading huckster would not think it sufficiently attractive to cover the illustrations of his wares.

This is unpardonable for architects, who are quite properly expected to have a knowledge of type design and setting. The badge is quite fair and could be allowed to stand, but seeing how easy it is to get reproductions of old English and old French type, and even good type of modern design, the use of type of bastard design for the cover of the JOURNAL is stupid and foolish.

One is reminded about the cobbler's children, who always go about worse shod than other children.

It is a pity Mr. Rickards is not still with us to design a new cover, but if a competition were held among the younger members of the Institute it would surely be possible to find a simple and appropriate design. If not, we are in a bad way, and the sooner we know it the better.

Should such a course not be desirable at present on the ground of expense, for goodness sake let us scrap the present cover and use decent type printed on paper of better colour, relegating the Table of Contents and Dates of Publications to an inside page.—Yours faithfully,

W. E. VERNON CROMPTON [F.]

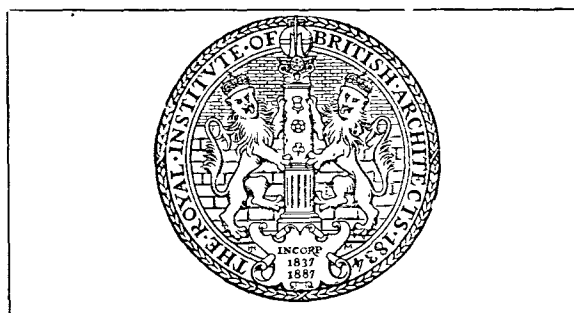
The changes which Mr. Crompton suggests are already under consideration.—ED.

RETIREMENT OF MR. HERBERT G. TAYLER, ASSISTANT SECRETARY.

The retirement of Mr. H. G. Tayler marks the termination of a long period of efficient and honourable service at the Institute.

I remember Mr. Tayler more than forty years ago, when he was an active junior assistant to the late Mr. W. H. White. The work of the Institute then was very different from what it is now. An occasional candidate for the Voluntary examination and a few for the District Surveyors' examination formed almost the only deviation from the leisurely routine work of the office. The establishment of the Standing Committees, and more particularly the institution of the obligatory examinations very largely increased this work. In connection with both of these new departures I was brought closely in touch with Mr. Tayler, and his work in connection with the examinations, of which for many years he had almost the entire control, was very heavy. I shall always remember the assiduous and careful attention which he gave to this work, and the Institute owes much to him in connection with it. He also had a great deal of the secretarial work on his hands during the interregnum after Mr. White's death, and again after Mr. Locke's resignation. Mr. Tayler will be much missed, and everyone will wish him many years of health and happiness in his retirement.

JOHN SLATER [F.]



9 CONDUIT STREET, REGENT STREET, W., 22nd Oct. 1921.

CHRONICLE.

Sessional Meetings 1921-1922.

Mondays—at 8 p.m., except when otherwise stated. 1921.

Nov. 7.—PRESIDENT'S OPENING ADDRESS, at 8.30 p.m.

Nov. 21.—SCHOOL DESIGN. By G. H. Widdows [F.].

Dec. 5.—Business Meeting: Election of Members.

Dec. 19.—To be announced later.

1922.

Jan. 9.—Business Meeting: Election of Members.

Jan. 23.—ARCHITECTURAL DRAUGHTSMANSHIP. By Professor William Rothenstein, M.A., Principal of the Royal College of Art. AWARD OF PRIZES AND STUDENTSHIPS.

Feb. 6.—PRESIDENT'S ADDRESS TO STUDENTS, at 8.30 p.m. PRESENTATION OF PRIZES.

Feb. 20.—THE INTERNAL DECORATION OF OCEAN LINERS. By Arthur J. Davis [F.].

Mar. 6.—Special and Business Meetings: Election of Royal Gold Medallist; Election of Members.

Mar. 20.—THE BUILDING TIMBERS OF THE EMPIRE. By H. D. Searles-Wood [F.].

Apr. 3.—LONDON CLUBS. By S. C. Ramsey [F.].

May 1.—ANNUAL GENERAL MEETING.

May 15.—THE FIRST HALF-CENTURY OF THE R.I.B.A. By J. A. Gotch, F.S.A. [F.].

May 29.—COLOUR IN ARCHITECTURE. By William Harvey, Owen Jones Student, 1913.

June 12.—Business Meeting: Election of Council and Standing Committees; Election of Members.

June 26.—PRESENTATION OF THE ROYAL GOLD MEDAL, at 8.30 p.m.

July 3.—RECENT EXCAVATIONS AT ROME. By Dr. Thomas Ashby.

M. Charles-Louis Girault, Royal Gold Medallist 1920.

It will be remembered that the presentation of the Royal Gold Medal to M. Girault in May last year was deferred in consequence of the industrial crisis at the time. In June of the present year, through the assistance of the Foreign Office, the Royal Medal was despatched to Paris, and on the 20th of that month the

presentation was made to M. Girault by Lord Hardinge, the British Ambassador.

M. Girault, whose portrait appears in the present issue, has had a long and distinguished career. He was born at Cosnes (Nièvre) on the 27th December 1851. In 1873 he was a pupil at the Ecole des Beaux Arts (Atelier Daumet), and gained various prizes during his student's days, including the Grand Prix de Rome. From 1881 to 1884 he was a *pensionnaire* of the Académie de France at Rome, and on his return to Paris in 1885 he was appointed Auditeur du Conseil Général des Bâtiments Civils et Palais Nationaux, and subsequently held many other important appointments. In 1908 he was elected President of the Société Centrale des Architectes Français, in 1919 he became President of the Académie des Beaux-Arts, and was also President (1919-1920) of the Fédération des Sociétés d'Architectes. In 1902 M. Girault was elected a member of the Institut de France in succession to M. Ernest Coquart.

The list of architectural works executed by M. Girault both in France and Belgium is extensive, and includes many notable buildings. He was the architect of the Palais de l'Hygiène at the Exposition Universelle of 1889, the tomb of Pasteur, at the Institut Pasteur (in 1896), the Petit Palais of the Champs Elysées (1896-1900), architect in chief of the Grand Palais, various private dwellings in Paris, and the Louis Pasteur monument, in the Avenue de Breteuil, the latter designed in collaboration with M. Falguère, the sculptor. His works in Belgium include additions to the Royal Castle at Laëken (1901-1902), the Congo Museum at Tervueren (1903-1910), and important works at Brussels and Ostend. During May a collection of photographs, illustrating M. Girault's work, was exhibited in the Institute Galleries.

Union Franco-Britannique des Architectes.

The inaugural meeting of the Franco-British Union of Architects will take place in the rooms of the Institute on the 24th inst., when a number of distinguished French architects, Original Members of the Union, will discuss with their British colleagues the "Statuts" of the new organisation, which, it is hoped, will prove of lasting value, not only from the purely professional point of view, but as an important factor in preserving and strengthening the "Entente Cordiale."

The new association (which is open to practising architects of both countries) owes its inception to Mr. John W. Simpson, who outlined the proposed Union in a Paper which he read at the Joint Conference on Architectural Education which was held in Paris last year.

It is the aim of the promoters of the Union that official business should be limited to a minimum, as it is felt that the purpose of the new organisation can be attained by informal discussions and the joint participation of both French and British members in social functions, visits to buildings, etc.

The arrangements for the first meeting are as follow :

MONDAY, 24TH OCTOBER.

- 9.30 a.m. Visit to Hampstead Garden Suburb, under the guidance of Mr. Raymond Unwin, Chief Architect, Ministry of Health.
- 3.0 p.m. Reception of French Original Members of the Union at 9, Conduit Street by the President of the R.I.B.A.
- 3.15 p.m. First General Meeting of the Franco-British Union of Architects
Tea will be served in the Common Room at the conclusion of the meeting; delegates and ladies are invited.
- 7.30 p.m. The French delegates will be entertained by the Council to dinner at the Café Royal, Regent Street, W.

TUESDAY, 25TH OCTOBER.

Members of the Union will visit Welwyn Garden City under the guidance of Mr. L. de Soissons (A.), S.A.D.G.

WEDNESDAY, 26TH OCTOBER.

During the morning French delegates will visit some recent buildings in London under the personal guidance of their architects.

- 3.0 p.m. French Members will be received by the President and Council of the Architectural Association at 34, Bedford Square, and will pay a visit to the Architectural Association School of Architecture under the guidance of Mr. Howard Robertson, S.A.D.G., Principal.
- 4.0 p.m. Tea will be served in the A.A. Members' dining room, to which ladies are invited.

The acting Hon. Secretary of the committee is Lieut.-Col. H. P. Cart de Lafontaine, O.B.E., T.D., to whom all communications with regard to membership, etc., of the Union should be addressed.

Smoke Abatement.

Mr. Ernest Newton [F.] has recently contributed an interesting article to the *Glasgow Herald* on the "Smoke Nuisance." Referring to effects of the coal strike on the atmosphere of London, Mr. Newton says: "For the first time in living memory town dwellers have been able to enjoy blue sky and floods of sunshine and to breathe clean, wholesome air." Mr. Newton quotes Professor Leonard Hill and Dr. Saleeby, from the interim report (1920) of the Committee of the Ministry of Health on smoke and noxious vapours abatement, as well as American authorities, to demonstrate that coal smoke is injurious to health, damaging to buildings, and "criminally wasteful." It is largely responsible for pneumonia and other respiratory diseases; it causes brick and stone decay. As coal is now used it occasions the loss of valuable by-products, such as dyes, drugs, explosives, motor-spirit, disinfectants, artificial manures, and other materials essential to industry. Mr. Newton's remedy for the present state of things is the substitution of gas and coke for domestic purposes and for the many manufacturing processes for which they are suitable, and scientific stoking where the use of solid fuel is essential.

SUPPLEMENT.

ADDITIONS TO THE R.I.B.A. LIBRARY FROM OCTOBER 1920—SEPTEMBER 1921

THE REFERENCE LIBRARY.

Books and Pamphlets.

Aberdeen

INSTITUTE OF SCOTTISH ARCHITECTS—Aberdeen
Chapter.

Annual Report, 1921. List of Members
pam. 8o. *Aberdeen* 1921
PRESENTED BY THE CHAPTER.

American Institute of Architects

Handbook of Architectural Practice.
4o. *Washington* 1920
PRESENTED BY THE INSTITUTE.

THE STANDARD DOCUMENTS OF THE INSTITUTE.

(a) Form of Proposal. (b) Form of Agree-
ment. (c) General Conditions of Con-
tract. 2 copies 4o. *Washington* 1911
PRESENTED BY MR. GROSVENOR ATTERBURY.

IOWA CHAPTER.

Proceedings of the 18th Annual Convention
held at Waterloo, Iowa. 8o. *Iowa* 1921
PRESENTED BY THE CHAPTER

LOUISVILLE CHAPTER.

Catalogue of the First Exhibition, 1912.
4o. *Louisville* 1912
PRESENTED BY THE CHAPTER.

PHILADELPHIA CHAPTER.

Year books of the 19th, 20th, 21st, 22nd and
23rd annual exhibitions held by the
Chapter and the T Square Club.
4o. *Philadelphia* 1913-1917
PRESENTED BY THE CHAPTER.

Aronovici (C)

Economic Ideal in Home Building.
pam. 4o. *Philadelphia* n.d.
PRESENTED BY THE NATIONAL HOUSING ASSOCIATION,
NEW YORK.

Architectural Association

Journal, 1920-21. 4o. *London* 1920-21
Curriculum, 1921-22. 4o. *London* 1921
PRESENTED BY THE ASSOCIATION.

Architects' and Surveyors' Assistants' Professional Union

Journal, 1920. sm. 4o. *London* 1920
PRESENTED BY THE SECRETARY.

Auctioneers' and Estate Agents' Institute

Journal, 1920-21. 8o. *London* 1920-21
PRESENTED BY THE INSTITUTE.

Barker (A H)

Domestic Fuel Consumption. 8o. *London* 1920
PRESENTED BY THE PUBLISHERS, MESSRS. CONSTABLE & CO.

Barozzio da Vignola (G)

The regular architect; or the general rule
of the five orders of architecture, with a
new addition of Michael Angelo Buona-
roti. fo. *London* 1669
PRESENTED BY MR. JOSEPH WEEKES.

Bell (W G)

More about Unknown London. 8o. *London* 1921
PRESENTED BY THE PUBLISHER, MR. JOHN LANE.

Berks, Bucks and Oxon Architectural Association

Year book, 1921. 2 copies pam. 8o. *Reading* 1920
PRESENTED BY THE ASSOCIATION.

Birmingham

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

Green Book, 1919-20. 8o. *Birmingham* 1919
Rules and By-laws and suggested Amend-
ments. pam 8o. *Birmingham* [n.d.]
PRESENTED BY THE ASSOCIATION.

Blake (E G)

Building Repairs. A practical guide to their
execution. 8o. *London* 1920
PRESENTED BY MESSRS. B. I. BATSFORD, LTD., THE
PUBLISHERS.

Blount (B), Kirkaldy (W G) and Sankey (H R)

Comparison of the Tensile, Impact-tensile
and Repeated-bending methods of test-
ing steel. pam 8o. *London* 1910
PRESENTED BY THE INSTITUTION OF MECHANICAL
ENGINEERS

Board of Education

Examination in Art, 1921. Rules and Sylla-
bus. pam. 8o. *London* 1921
PRESENTED BY THE BOARD.

Bonner (H) and Veiller (L)

Tenement House Fires in New York.
pam. 4o. *New York* 1900
PRESENTED BY THE NATIONAL HOUSING ASSOCIATION,
NEW YORK

Bradford Technical College

Prospectus, 1921-22. 8o. *Bradford* 1921
PRESENTED BY THE PRINCIPAL

Bradshaw (T)

TORONTO HOUSING COY., LTD.
Report, 1918. pam. 8o. *Toronto* 1918
PRESENTED BY THE NATIONAL HOUSING ASSOCIATION,
NEW YORK.

Briggs (G W)

The Housing Problem in Texas.
pam. So. *Ga'.* [1918]
PRESENTED BY THE NATIONAL HOUSING ASSOCIATION,
NEW YORK

Bristol

ROYAL WEST OF ENGLAND ACADEMY.
School of Architecture. Prospectus.
So. *Bristol* [n.d.]
PRESENTED BY THE ACADEMY.

British Archæological Association

Journal. N.S. Vol. XXVI. So. *London*, 1920
PRESENTED BY THE ASSOCIATION.

British Empire Forestry Conference

Proceeding, Resolutions and Summary of
Statements. pam. So. *London*, 1921
PRESENTED BY THE SECRETARY.

British Engineers' Association

Steel Structures. Vol III. 4o. *London*, 1921
PRESENTED BY THE ASSOCIATION.

British Engineering Standards Association

No. 57. Report on British Standard Heads
for British Association Screws.
pam. So. *London*, 1920
No. 77. British Standard Electrical Pres-
sures for New Systems and Installa-
tions. pam. So. *London*, 1921
No. 91. British Standard Specification for
Electric Cable Soldering Sockets.
pam. So. *London*, 1921
No. 135. British Standard Specification for
Benzol for Motor Fuel. pam. So. *London*, 1921
No. 139. British Standard Specification for
Red Fir wood poles for Telegraph and
Telephone Poles. pam. So. *London*, 1921
PRESENTED BY THE ASSOCIATION.

Brookline Education Society

TOWN IMPROVEMENT COMMITTEE
The Wooden Apartment House Question in
Brookline. pam. So. *Brookline* n.d.
PRESENTED BY THE NATIONAL HOUSING ASSOCIATION,
NEW YORK.

Brunfaut (J)

Inauguration du Monument de la reconnais-
sance belge à Londres. pam. So. *Brussels* 1920
Le Town-Planning, étudié en avion.
pam. So. *Brussels* 1920
PRESENTED BY THE AUTHOR.

Brussels

ACADÉMIE ROYALE DE BELGIQUE.
Bulletin de la Classe des Lettres, 1921.
Bulletin de la Classe des Beaux Arts, 1921.
Annuaire, 1921.
PRESENTED BY THE ACADEMIE.

Bullant (Jean)

Règle générale d'Architecture des cinq
manieres de colonnes. [Title-page 1647
édition.] 4o. *Paris* 1568
PRESENTED BY F. R. HIGGINS [F.].

Canada

COMMITTEE OF CONSERVATION
Water Powers of British Columbia
4o. So. *Ottawa* 1919
PRESENTED BY THE GOVERNMENT.

Cape Town, S.A.

CAPE INSTITUTE OF ARCHITECTS.
Year Book, 1920-21 and 1921-22
So. *Cape Town*, 1921-22
PRESENTED BY THE INSTITUTE.

Casella (C F and Co)

Machine for rapidly testing Steel and other
metals (Captain Sanky's patent).
pam. So. *London*, [n.d.]
PRESENTED BY THE PUBLISHERS, MESSRS. C. F. CASELLA
& Co.

Chatham

INSTITUTE OF ROYAL ENGINEERS.
Journal. Vol. XXXIV. So. *Chatham* 1921
PRESENTED BY THE INSTITUTE.

Clarke Somers

El-Kib and the Great Wall. 4o. *London*, 1921
PRESENTED BY THE AUTHOR.

Clerks of Works' Association

Journal, 1920-21. So. *London*, 1920-21
PRESENTED BY THE ASSOCIATION.

Compendium Publishing Company

The Architect's Compendium and Catalogue.
1921. 4o. *London*, 1921
PRESENTED BY THE PUBLISHERS.

Concord

ARCHÆOLOGICAL INSTITUTE OF AMERICA.
Journal, vol. XXV. So. *Concord, N.H.* 1921
PRESENTED BY THE INSTITUTE.

Concrete Institute

Transactions and Notes, vol. ix. So. *London*, 1921
PRESENTED BY THE CONCRETE INSTITUTE.

Concrete Publications Ltd.

Concrete Roads and their construction
So. *London*, 1920
PRESENTED BY THE PUBLISHERS.

Cork

UNIVERSITY COLLEGE.
Calendar, 1920-21.
PRESENTED BY THE REGISTRAR.

Curtis Science Bureau, Clinton, Iowa

Restful Rooms. pam. So. *Iowa* 1920
The Center of your world. pam. So. *Iowa* 1920
PRESENTED BY THE NATIONAL HOUSING ASSOCIATION,
NEW YORK.

Dawnay (A D)

Tables and Data for the design of Construc-
tional Steel Work. 8vo. So. *London*, [1921]
PRESENTED BY THE PUBLISHERS, MESSRS. A. D. DAWNAY
& SONS, LTD.

Detroit

Housing Association—Right methods in a
Housing Bureau. pam. So. *Detroit* 1915
PRESENTED BY THE NATIONAL HOUSING ASSOCIATION,
NEW YORK.

Dublin

ROYAL INSTITUTE OF ARCHITECTS OF IRELAND.
Memorandum and Articles of Association.
4o. *Dublin* [1909]
PRESENTED BY THE INSTITUTE.

ROYAL SOCIETY OF ANTIQUARIES OF IRELAND.
Journal. 1920-21. So *Dublin* 1920-21
PRESENTED BY THE SOCIETY.

UNIVERSITY COLLEGE.
Calendar. 1920-21.
PRESENTED BY THE COLLEGE.

Edinburgh

NATIONAL ART SURVEY OF SCOTLAND.
Examples of Scottish Architecture from the
12th to the 17th Century. Part i.
Amisfield Tower, Dumfriesshire; Earls-
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The design and construction of Industrial Buildings. 8s. *London* 1917
- Langewiesche (Karl Robert)**
Deutsche Baukunst des Mittelalters und der Renaissance. 10. *Kunstverlag im Teubner* [n.d.]
- Lambert (B A) and Stahl**
Deutsche Residenzen und Gärten des xviii. Jahrhunderts. 20 plates in portfolio. 10. *Leipzig* [n.d.]
- Law**
County Courts Acts, 1919. 10. *London* 1919
Housing of the Working Classes Acts, 1890-1909. Memorandum for the use of Local Authorities with respect to the provision and arrangement of houses for the Working Classes, with plans. 10. *London* 1917
- Le Blond (A)**
The Old Gardens of Italy. 8s. *London* [n.d.]
- Léon (P)**
Les monuments historiques—conservation, restauration. 10. *Paris* 1917
- Liesegang (W)**
Das Einamilienhaus. 10. *Berlin* [n.d.]
- Litchfield (F)**
Antiques genuine and spurious. 1a. 8s. *London* 1921
- Lockwood**
Builder's, Architect's, Contractor's, and Engineer's Price Book for 1921. Ed. by Stephen Ayling [F.] With Supplement containing London Building Acts, 1894-1909. 8s. *London* 1921

London County Council**LONDON BUILDING ACT.**

Memorandum on the 1905 (Amendment) Bill.
fo. *London*. 1905

LONDON BUILDING ACT, 1894. SECTION 164.

By-laws made June, 1914, for the regulation
of Lamps, Signs, or other Structures
overhanging the Public Way. fo. *London*. 1914

GENERAL POWERS ACT, 1890—SECTION 31.

Regulations as to plastering, filling up of
excavation, duties of District Sur-
veyors, District Surveyors' fees.
fo. *London*. 1890

GENERAL POWERS ACT, 1908, PART 3.

Regulations with regard to additional cubical
extent, openings in party walls and
uniting of buildings. fo. *London*. 1910

GENERAL POWERS ACT, 1908.

Regulations made under Section 23 with re-
spect to the construction of buildings
wholly or partly in Reinforced Concrete
fo. *London*. 1915

ADVERTISEMENT REGULATION ACT, 1907

By-laws made Nov. 1914 for the regulation
and control of Hoardings and similar
structures when used for advertising and
when they exceed 12 feet in height.
fo. *London*. 1914.

Bylaws as to the formation of New Streets in
the Metropolis fo. *London*. [nd.]

METROPOLIS MANAGEMENT AND BUILDING ACTS**AMENDMENT ACT, 1878.**

By-laws made by the Council under Section
16 repealed and new by-laws, October
1891. fo. *London*. 1891

SANITARY REGULATIONS. BUILDING CONSTRUCTION.**LAYING OUT OF STREETS**

Return showing abstracts of the by-laws
... in the County of London, Dis-
tricts bordering on the County, and
similar extracts from the model by-laws
of the L.G.B. fo. *London* 1902

Malton (J)

An Essay on British Cottage Architecture.
fo. *London* 1798

Matarazzo (Francesco)

Chronicles of the city of Perugia, 1492-1503
Translated by Edward Strachan Morgan
So. *London* 1905

Mebes (P)

Um 1800: Architektur und Handwerk
fo. *München* 1918

Michelin Guides**ILLUSTRATED GUIDES TO THE BATTLEFIELDS (1914-1918).**

The Somme, Vol. 2. The second battle of the
Somme (1918)

Amiens—Montdidier—Compiègne.

The Yser and the Belgian coast.
So. *Cherbourg-Fernand (France)* 1920

Ministry of Health**GENERAL HOUSING MEMORANDA, NOS. 31, 51D AND 52.**

Fees payable to Architects and Quantity Sur-
veyors in connection with State-aided
Housing Schemes. pam. So. *London*. 1920-21
Standard Specification for Cottages. So. *London* 1919
Town Planning regulations. 1921.
pam. So. *London*. 1921

Pricke Robert

Perspective Practical, by (J. Dubreuil),
translated by R. P. fo. *London* 1672

Quennell M and C H B

History of Everyday Things in England,
1066-1770 So. *London*. [1918]

Rodocanachi E

Les monuments de Rome la. fo. *Paris* 1914

St. Petersburg**LA COMMISSION IMPÉRIALE ARCHÉOLOGIQUE.**

Les mosquées de Samoude
la. fo. *St. Petersburg* 1905

Schmitz H

Berliner Baumeister fo. *Berlin* 1914

Scotland**WORKING CLASS DWELLINGS**

Report of the Committee of Inquiry into the
High Cost of Building. So. *London* 1921

Spon E and F H

Architects' and Builders' Pocket Price Book.
sm. So. *London* 1920

Practical Builders' Pocket Book. Ed. by
Clyde Young. [F] 3d. ed. So. *London*. 1921

Stevens (E T)

The American Hospital of the Twentieth
Century. sm. fo. *New York* 1918

Tipping H A

English Homes fo. *London* 1921

Vacquier J. and Contet F

Les vieux hôtels de Paris. Le Faubourg St
Germain. Tome IV. Decorations ex-
ternes et intérieurs. fo. *Paris* 1920

Ventura A.

Partecolli di architettura classica. Archi-
tettura Greca Romana Bizantina -
Longobarda Gotica Rinascimento Ser-
vando Settecento. fo. *Turin* [1919]

Wasmuth

Monatsshefte für Baukunst, 1914-15.
fo. *Berlin* 1915

Webster A D

London Trees So. *London*. 1920

- Weller (C H)**
Athens and its monuments. So. *Lond.* 1913
- Wood (Sir Kingsley)**
Law and Practice with regard to Housing in
England and Wales. la. So. *Lond.* 1921
- Woodfall**
Woodfall's Law of Landlord and Tenant, 29th
edition, by A. J. Spencer. la. So. *Lond.* 1921
- Vienna**
Bericht über den VIII. Internationalen Archi-
tekten-Kongress, Wien, 1908
So. *Vienna* 1909
- DRAWINGS.**
- London Topographical Society.**
Reproduction of Sutton Nicholls' print of
London Bridge c. 1725
- Loan Library.**
- PURCHASED.**
- Attlee (T S)**
Man and his buildings. So. *Lond.* 1920
- Baines (F)**
WESTMINSTER HALL
Report to the First Commissioner of H.M.
Works, &c., on the condition of the
roof timbers of Westminster Hall,
with suggestions for maintaining the
stability of the roof. sm. 10. *Lond.* 1914
- Bolton (A T)**
Architecture and decoration of Robert Adam
and Sir John Soane. pam. So. *Lond.* 1920
- Boulnois (H P)**
Modern Roads So. *Lond.* 1919
- Bourne (F A), Holst (H V von) and Brown (F C)**
Architectural Drawing and Lettering.
So. *Chicago* 1920
- Bryant (V S) and Hughes (T H)**
Map Work. Illustrated by 91 diagrams and
drawings by the Authors sm. 40. *Oxford* 1918
- Cole (R V)**
Perspective: The practice and theory of
perspective as applied to pictures, with
a section dealing with its application to
architecture. Illustrated by 436 dia-
grams by the author and 36 pictures
chiefly by the Old Masters. So. *Lond.* 1921
- Edwards (A T)**
The Things which are seen. A revaluation
of the visual arts. So. *Lond.* [1921]
- Journal**
Specifications, No. 23, 1921. fo. *Lond.* 1921
Dedalo, vol. i. 40. *Milan* 1920-21
- Kinsila (E B)**
Modern Theatre construction. So. *New York* 1917
- Langley (B and T)**
Builder's Jewel. [Reprint from 1747, 1769
editions.] sq. 120. *Lond.* [1920]
Treasury of Designs. [Reprint from 1745 ed.]
sq. 120. *Lond.* [1920]
- Macalister (R A S)**
History of civilization in Palestine.
So. *Lond.* 1921
- Matarazzo (Francesco)**
Chronicles of Perugia, 1492-1503. Tran-
lated by Edward Strachan Morgan.
So. *Lond.* 1905
- Moses (H) and Others**
Collection of Antique Vases, Tripods, Can-
delabra, &c., from various Museums and
Collections, selected by J. Tiranti, the
publisher. sm. 40. *Lond.* 1921
- Piggott (J T)**
Reinforced Concrete Calculations in a nut-
shell. With the London County Coun-
cil regulations. sm. So. *Lond.* 1921
- Powell (A H) and Others**
Report on the treatment of old cottages.
So. *Lond.* 1921
- Quennell (M and C H B)**
History of Everyday Things in England.
vol. i, 1066-1499. So. *Lond.* [1919]
——— vol. ii, 1500-1799. So. *Lond.* [1919]
- Rivington**
NOTES ON BUILDING CONSTRUCTION.
Vol. iii, Materials. la. So. *Lond.* 1919
Vol. iv, Calculations for Building Structures.
la. So. *Lond.* 1920
- Schliepmann (Hans)**
Lichtspieltheater, eine sammlung ausge-
führter Kinohäuser in Gross-Berlin.
fo. *Berlin* 1914
- Scott (G)**
The Architecture of Humanism. la. So. *Lond.* 1914
- Stobart (J G)**
The Grandeur that was Rome. la. So. *Lond.* [1920]
- Technical Journals, Ltd.**
Who's Who in Architecture. So. *Lond.* 1914
- Threlfall (H)**
Surveying and Levelling. So. *Lond.* 1920

Nicholas Hawksmoor.

The work of reparation, undertaken by the Art Standing Committee, in connection with the tomb of Nicholas Hawksmoor, in the churchyard of St. Botolph's, at Shenley (Herts), is now completed. Intimation has also been received from the Rector that the framed record of Hawksmoor's life and work (see JOURNAL, p. 485) has been hung in a suitable position in the church.

"Guy Fawkes" Ball.

As all the profits are to be devoted to the funds of the First Atelier and the Architectural Association Atelier, for the furtherance of architectural education, it is hoped that there will be a large attendance at the fancy dress "Guy Fawkes" ball to be held in the galleries of the Institute on Friday, November 4th. Fancy dress is compulsory for gentlemen, but Venetian cloaks, dominoes, and fancy dress costumes will be obtainable in the cloak rooms on the evening of the ball. Dancing from 9 p.m. to 5 a.m. Tickets (15s. each: students 10s. 6d. each) may be obtained from the Secretary of the Institute.

Public Works, Roads and Transport Congress.

The Public Works Congress, of which Mr. Waterhouse is a Vice-President, will be held at the Royal Agricultural Hall from the 17th to 18th November. It has been convened for the purpose of discussing the most efficient and economical methods of carrying out all forms of municipal enterprise, such as housing, road construction and maintenance, mechanical traction, street lighting, land settlement, water supply, etc. To members of the Institute desirous of attending the Congress complimentary tickets will be issued on application.

Dr. Belage in England.

Dr. H. P. Belage, President of the Dutch Society of Architects, is shortly coming to England, and is giving the second lecture of the series arranged by the Garden Cities and Town Planning Association, on "Great Cities of the World." Dr. Belage will lecture on "Amsterdam: Past and Present," on Thursday, 10th November, at 5.30, at King's College, Strand, W.C. The chair will be occupied by Sir Walter Townley, K.C.M.G., late British Minister at the Hague. Tickets of admission may be obtained from the Secretary, Garden Cities and Town Planning Association, 3, Gray's Inn Place, Gray's Inn, W.C.1.

British School at Athens.

On the occasion of the annual meeting of the subscribers to the British School at Athens, which will be held in the rooms of the Society of Antiquaries on 25th October, at 4.30 p.m., Miss W. Lamb will give, on behalf of the Director, an account, illustrated by lantern slides, of the recent excavations of the School at Mycenae, and Mr. S. Casson, the Assistant Director, an account of his recent excavations in Macedonia. H.E. Mons. J. Gennadius will preside.

COMPETITIONS.**Ilford War Memorial.**

Members and Licentiates of the Royal Institute of British Architects must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

Southend-on-Sea. Pier Pavilion Improvement.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the above competition are unsatisfactory. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition.

Bury New Cinema Competition.

The Competitions Committee desire to call the attention of Members and Licentiates to the fact that the Conditions of the above Competition are unsatisfactory. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members and Licentiates are advised to take no part in the Competition.

Auckland War Memorial Competition.

The conditions of this Competition have now been amended to meet the views of the R.I.B.A. Competitions Committee and the New Zealand Institute of Architects, and members of the Royal Institute are accordingly at liberty to take part in the Competition.

The date for sending in drawings has been extended to May 1922. A few copies of the conditions are available for reference in the R.I.B.A. Library.

IAN MACALISTER,

19th October 1921.]

Secretary, R.I.B.A.

The City of Auckland, New Zealand, has raised a fund for the erection, at a cost of £170,000, of a Museum and Institute as a Memorial to those of its citizens who laid down their lives in the Great War.

The design of the building will be the subject of a competition open to all Architects. The Mayor of Auckland has sent a number of copies of the Conditions to the Secretary of the Royal Institute of British Architects, and has requested him to take steps to bring the Competition to the notice of British Architects generally, and in particular to Architectural Students from New Zealand who are studying at the British Schools of Architecture.

Premiums amounting in all to £1 000 will be given to the authors of the first three designs.

Books Received.

A Handbook containing a Collection of Tables and Data for the Design of Constructional Steel Work. [Archibald D. Dawney and sons, Ltd., Steel Constructional Engineers and Contractors, Battersea, S.W.] Reinforced Concrete Construction. Part II. With numerous fully worked examples. By M. T. Cantell, *Licentiate R.I.B.A.* 243 illustrations, including 7 plates. 2nd ed. 8s. Lond., 1921. 16s. net; 16s. 9d. post free in U.K. [E. & F. N. Spon, Ltd., 57, Haymarket, S.W.] The Renaissance of Roman Architecture. By Sir Thomas Graham Jackson, Bart., R.A. Part I. Italy. La. 8s. Lond., 1921. 42s. net [Cambridge University Press.]

OBITUARY.

The late Mr. R. St. A. Roumieu [A.]

It is with the greatest regret that I have to record the death of Mr. Reginald St. Aubyn Roumieu, which took place on the 3rd October, 1921.

Mr. Roumieu was an Associate of the Royal Institute of British Architects, a Past Grand Superintendent of Works in Freemasonry, and a Knight of Grace of the Order of St. John of Jerusalem. The last distinction was conferred upon him by the sanction of the King in recognition of his many gifts and services to philanthropic and charitable objects.

Born in 1854, Mr. Roumieu was the great-grandson of Abraham Roumieu, who was in practice as an architect in London in 1769, and son of the late Robert Lewis Roumieu, F.R.I.B.A., who was articled to Benjamin Wyatt in 1831, and had a very considerable practice.

On the death of his father, Mr. Roumieu at first continued the practice alone, afterwards taking into partnership the late T. Kesteven Hill, after whose death he was joined by the late Alfred Aitchison, brother of Professor Aitchison, R.A.

The Roumieus, father and son, occupied the same offices, 10, Lancaster Place, Strand, for over 80 years.

Although Mr. Roumieu, with his partners, carried out a large number of buildings, they were not perhaps of sufficient importance to interest others.

I should, however, like to mention one interesting fact: that both father and son each built a Hospital as Honorary Architect, the former "The French Hospital" at Hackney, a hospice for the aged descendants of poor French Protestants, and the latter "The Grosvenor Hospital," Vincent Square, Westminster, a modern hospital for women.

Mr. Roumieu also had a considerable practice as a London surveyor, and was on more than one occasion appointed as official umpire by the Courts.

He was descended from the old Huguenot family of Romieu, who fled from France during the massacres of the Huguenots and settled in this country.

About the year 1885 Mr. Roumieu assisted in forming a society which is now known as the Huguenot Society of London, of which he became in late years the president.

His interest in charities was great and his subscription list a long one.

For a number of years he served on the Council of the Architects' Benevolent Society, and, later, as its Vice-President. He was also an active member of the Committees of the National Benevolent Institution, the Rebecca Hussey Book Charity, and the Westminster French Protestant School.

He was one of the oldest Directors of the French Hospital, to which he acted as Honorary Architect for many years, and was a Governor of the Foundling Hospital.

JOHN PENFOLD [A.].

MEMBERS' COLUMN.

Members, Licentiates and Students may insert announcements and make known their requirements in this column without charge. Communications must be addressed to the Editor, and be accompanied by the full name and address. Where anonymity is desired, box numbers will be given and answers forwarded.

Books Wanted.

Wanted, Anderson's *Italian Renaissance*, Ward's *French Renaissance*, and other books on Architectural History, etc. State edition, condition, and price.—W. S. Purchon [A.], The Technical College, Cardiff.

Change of Address.

Mr. J. Harold Savner [A.] notifies that he has changed his address to 29, High Street, Great Missenden, Bucks.

Resumption of Practice.

Mr. Manning Robertson, A.R.I.B.A., is resigning his post of Deputy Chief Architect to the Ministry of Health, Housing Department, and is resuming private practice at 59, Norfolk Square, London, W.2. (Telephone: Paddington 1492.)

Partnership.

Young architect of ability and with good references, wishing to purchase a partnership in a first class well established firm of provincial architects, should wish stating age, training, qualifications and experience, to Box No. 7101.

Appointments Wanted.

A R.I.B.A. M.S.A. Aged 28, seeks employment. All-round experience. Banking, factory, institutional, engineering, and industrial buildings in steelwork. Salary £350. Excellent references.—Apply Box 241, Secretary R.I.B.A.

AN INDIAN ARCHITECT, at present in England studying for the Final R.I.B.A. Examination, is anxious to enter an Architect's office, if possible in London, with a view to obtaining further experience. Has good knowledge of construction, surveying, etc.—Apply Box 8101, c/o Secretary R.I.B.A., 9, Conduit Street.

Daily Mail Labour-saving House Competition.—Lie. R.I.B.A. offers to prepare perspective in accordance with the conditions, on competitor's own drawing at a special fee of £2 2s. finished in ink or £1 1s. pencil outline only.—Address Box 1102, c/o Secretary R.I.B.A.

LICENTIATE, 20 years' varied architectural experience, offers services, temporary or otherwise. Good design, working drawings and draughtsmanship, specifications, supervision of works, surveying, etc. Experience in reinforced concrete and steelwork.—S. H. Goodwin, 95, Chase Side, Luton.

EX-CAPTAIN, A R.I.B.A., 34, married and two children. Eleven years' varied experience (excluding five years' overseas in Army), had own practice before war. Now stranded owing to abandonment of work. Willing to tackle any job, architectural or otherwise, if permanent.—Apply Box 1101, c/o Secretary R.I.B.A.

A R.I.B.A., 29 2½ years' private practice, good connection and prospects, desires partnership in established London firm. Capital forthcoming if necessary.—Box 1310, c/o The Secretary R.I.B.A., 9, Conduit Street, London, W.1.

A R.I.B.A. desires appointment, is prepared to acquire an interest in established firm after probationary period. Eighteen years' varied experience. Ex-R.A. Schools student. Would join architect in competition or speculative work on mutual terms. Address Box 1421, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

ASSOCIATE, aged 29, wishes to obtain situation with good firm of architects in busy provincial town—Midlands preferred—with a view to partnership. Travelled in Italy and Greece. Experience in Scotland and Midlands. Factory design. Steel and reinforced concrete construction. Address Box 1710, c/o Secretary R.I.B.A., 9, Conduit Street, London, W.1.

Society of Architects.

The Society of Architects are inviting applications for the post of Assistant Secretary. Particulars of appointment may be obtained on application from the Secretary, 28, Bedford Square, London, W.C.

NOTICES.

Election of Members, 5th December 1921.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 7th November 1921 [See also lists published 11th June and 27th August 1921]:—

AS FELLOWS (8).

- BARNISH: LEONARD [A. 1911]. Royal Liver Building, Liverpool: 14 Fairview Road, Oxtou, Birkenhead.
 BEAUMONT: WILLIAM SOMERVILLE [A. 1903], 24, Brazen-nose Street, Manchester; Beech Mount, Barrington Road, Altrincham, Cheshire.
 DATH: JOHN LOVE SEATON [A. 1909], Radnor Chambers, Folkestone: 23 Edward Road, Bromley, Kent.
 EVANS: CHARLES GLYNN [A. 1912], The Croft, Neath: 13 New Street, Neath.
 RUSSELL: ROBERT TOR. D.S.O. [A. 1914], P.W.D., Raisina, Delhi, India.
 SULLIVAN: BASIL MARTIN [A. 1913], Consulting Architect to the Punjab Government, P.W.D., Secretariat, Lahore, India: 28 Lawrence Road, Lahore, India.
 VINING: JOHN NORMAN RANDALL [A. 1905], Rolls Chambers, 89 Chancery Lane, W.C.2.: 23 Hayes Road, Bromley, Kent.
 WATRINS: WILLIAM GREGORY [A. 1893], St. Edmond's Chambers, Silver Street, Lincoln: 20, Wragby Road, Lincoln.

AS ASSOCIATES (113).

- ADAMS: ERNEST HARRY [Special War Examination], Works Department, Messrs. Butterfield and Swire, Shanghai, China.
 ARMSTRONG: EDWARD JOSEPH [Special War Examination], Lendal Chambers, York.
 ATKIN-BERRY: HENRY GORDON [Special War Examination], 16, Eaton Terrace, S.W.1.
 AULD: ALEXANDER COSMO SMITH [Special War Examination], 7 Milton Road, Highgate, N.6.
 BAILEY: CLARENCE HOWARD [Special War Examination], "Maitland," Hildaville Drive, Westcliff-on-Sea.
 BARBER: CECIL [Special War Examination], 76 Kirkstall Lane, Kirkstall, Leeds.
 BARNETT: RICHARD REGINALD [Special War Examination], 13, Grafton Road, Acton, W.3.
 BATEMAN: ROBERT WALLACE, M.C., B.A. [S. 1920—Special War Exemption], 35 Acomb Street, Whitworth Park, Manchester.
 BATTY: JOHN [Special War Examination], 145 Dover Road, Northfleet, Kent.
 BATZER: ALBERT EDWARD [Special War Examination], 7 Hobart Place, Grosvenor Gardens, S.W.1.
 BECKERTON: WALTER CRANE [Special War Examination], 16 Lower Oxford Street, Castleford, Yorks.
 BLACKETT: JOHNSON [Special War Examination], 45 Pool Bank, Port Sunlight, Cheshire.
 BLONFIELD: AUSTIN, B.A. [Special War Examination], 51 Frognal, Hampstead, N.W.3.
 BOTTING: MILTON [Special War Examination], Suncroft, Pollard Road, Mitcham, Surrey.
 BOWES: TREVOR STRAKER [Special War Examination], 193 Connaught Road, Cardiff.
 BRIDGMAN: GERALD SOUDON [Special War Examination], Devon Chambers, 1 Palace Avenue, Paignton.
 BROADBENT: GODFREY LIONEL [Special War Examination], 23 St. Peter's Mount, Bramley, Leeds.
 BROWN: KENNETH HENDERSON [Special War Examination], 11, Oscar Road, Torry, Aberdeen.
 BROWN: LEONARD JOHN [Special War Examination], 172 Ribblesdale Road, Streatham, S.W.16.
 BRYAN: GEORGE ALBERT [Special War Examination], 17 Roseden Road, Hammersmith, W.6.
 BURGESS: HAYDN MERVYN RHYS [Special War Examination], 29 Richard St., Cilfynydd, Pontypridd, Glam.
 BUTLER: CECIL GEORGE [Special War Examination], 28 Vereker Road, Baron's Court, W.
 BUTLIN: FREDERICK GEORGE MONTAGUE [Special War Examination], "Naseby," Woodberry Way, North Finchley, N.12.
 CAMPBELL: JOHN, D.C.M., M.M. [Special War Examination], 54 Hill Street, Withington, Manchester.
 CARTER: CHARLES SHIRLEY [Special War Examination], 124 Sunnyside Road, Streatham, S.W.
 CHALLEN: HAROLD BERTRAM [Special War Examination], 73 Oakhill Road, Putney, S.W.15.
 CHANNON: ERIC USHER [Special War Examination], Redwells, Melton, Yorks.
 CHARLTON: ERNEST STEWART [Special War Examination], 11 Council Houses, Moy Road, Taffs Well, Glam.
 CHEERS: WILFROY ANSON [Special War Examination], "Pinemoor," Cornwall Road, Harrogate, Yorks.
 CHILD: FREDERICK AUSTIN [Special War Examination], 15 Albion Road, North Shields.
 CLARK: ROBERT GIBSON [Special War Examination], Fenay Gardens, Fenay Bridge, Huddersfield.
 COLLINS: OWEN HYMAN [Special War Examination], 61 Old Broad Street, E.C.
 COOKSEY: REGINALD ARTHUR [Special War Examination], 6 Adam Street, Adelphi, W.C.
 CROSSMAN: CYRIL JOHN [Special War Examination], 4 The Grove, Blackheath, S.E.10.
 DARTYSHIRE: THOMAS SCROFFILLD [Special War Examination], 173 Crowborough Road, S.W.17.
 DAVIES: IDRIS [Special War Examination], P.O. Box 80, Nairobi, Kenya Colony.
 DAWBARN: GRAHAM RICHARDS, M.A. [Special War Examination], "Klamath," Sidecup, Kent.
 DEAN: FRANCIS MOORHOUSE [Special War Examination], 22 Kilmartin Avenue, Norbury, S.W.16.
 DONALD: JAMES [Special War Examination], Hillhead, Tulloch, Oldmeldrum, Aberdeenshire.
 DRAKE: FRANCIS MILVERTON [Special War Examination], State Buildings, P.W.M., Cairo, Egypt.
 DURAND: ARTHUR HENRY [Special War Examination], 22 Orchard Street, Portman Square, W.1.
 EASTON: JOHN MURRAY [Special War Examination], Ulster Chambers, 168, Regent Street, W.1.
 EBERLIN: ALBERT EDGAR, M.C. [Special War Examination], 16 Park Terrace, Nottingham.
 EPRILE: CECIL JACOB [Special War Examination], 3 Seymour Mansions, Boscombe Road, W.12.
 FAWCETT: GEORGE HERBERT [Special War Examination], 102, Westborough, Scarborough.
 FERGUSON: ROBERT WEMYSS [Final Examination], 41 Ladysmith Road, Blackford Hill, Edinburgh.
 FREAR: ERNEST [Special War Examination], 110 Radcliffe Road, West Bridgford, Notts.
 FREW: JAMES ALLEN [Special War Examination], Buin-green, Kilsyth, Scotland.
 GALE: GEORGE ALEX. [Special War Examination], 19 Highbury Terrace, N.5.
 GALTIE: CHARLES ROBERTSON [Special War Examination], 5 Ardeonnell Terrace, West, Inverness.
 GIMSON: HUMPHREY MORLEY [S. 1921—Special War Exemption], 713 Aylestone Road, Leicester.
 GRESSWELL: HUGH [Special War Examination], 77 Huron Road, Tooting Bec Common, S.W.17.
 HARMAN: GEORGE THOMAS [Special War Examination], "The Myrtles," The Avenue, St. Margarets-on-Thames.
 HARRIS: MORGAN RHYS HOWELL [Special War Examination], Brynvor Avenue, Neath, S. Wales.
 HARVEY: JOHN LYNE, M.C. [Special War Examination], 74 Longridge Road, Earl's Court, S.W.5.
 HEDGES: WALTER FREDERICK [Special War Examination], Public Works Department, Accra, Gold Coast Colony, West Africa.

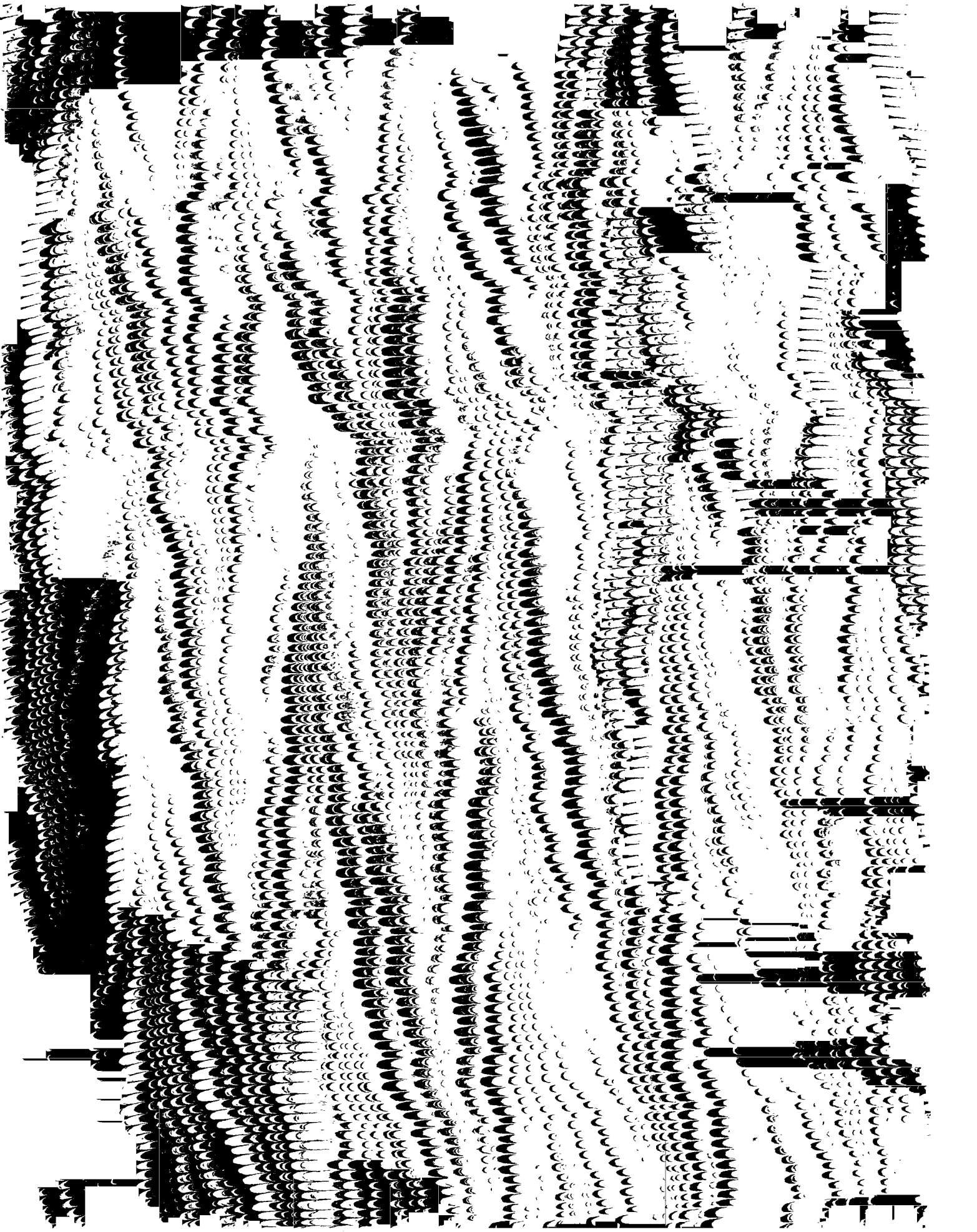
- HENDERSON: JAMES MURDOCH DALZIEL [Special Examination], 1, Holmston Road, Avr.
- HEYSHAM: TERENCE ERNEST [Special War Examination], 44 Lancaster Road, West Norwood, S.E.
- HILL: OLIVER [Special War Examination], 23 Golden Square, W.1.
- HINWOOD: NEVILLE, M.M. [Special War Examination], "Lyford," Park Farm Road, Kingston-on-Thames.
- HORN: PERCIVAL THEODORE [Special War Examination], 16 Oakfield Road, Stroud Green, N.4.
- HORTH: HAROLD EDWIN [Special War Examination], 21 Salisbury Street, Hull.
- HUMPHRY: HAROLD WALTER [Special War Examination], "Holmewood," Marius Road, Balham, S.W.17.
- HUNT: STANLEY [Special War Examination], "Richmond House," 11 Powell Road, Clapton, E.5.
- HYDE: SIDNEY [Special War Examination], 97 Moray Road, Finsbury Park, N.4.
- INGHAM: LAWRENCE WILLIAM [Final Examination], 1 Strathmore, Sutton, Co. Dublin.
- JACKSON: REGINALD [Special War Examination], 1 South Esplanade, Peckitt Street, York.
- JAMES: ALLEN COLLIER [Special War Examination], St. George's College, Quilmes, Buenos Aires, Argentine Republic.
- JOHNSON: FRANK LESLIE [Special War Examination], 43 Courthope Road, Hampstead, N.W.3.
- JONES: HAROLD [Special War Examination], Birten, near Aylesbury, Bucks.
- LAMB: HERBERT ARTHUR JOHN [Special War Examination], 26 Porchester Square, W.2.
- LECKENBY: CECIL [Special War Examination], 7 Cameron Grove, York.
- LOGAN: JAMES, M.C. [Special War Examination], 24 Crown Street, Newcastle-on-Tyne.
- MANN: WILLIAM RODERICK JOHN [Special War Examination], 2 Lorne Terrace, Sunderland.
- MASTER: CHIMANLAL MOTIRAM, M.A. [Final Examination], Atmaram Mansions, Lamington Road, Bombay (4), India.
- MATHEWS: BENJAMIN KENNY OLLARD [Special War Examination], 7 Montpelier Row, Blackheath, S.E.
- MEALAND: HENRY ANTHONY [Special War Examination], Y.M.C.A., Tottenham Court Road, W.1.
- MEKLE: JOSEPH ABRAHAM [Special War Examination], 9 Cautley Avenue, Clapham Common, S.W.4.
- MENDHAM: JOHN BERNARD [Special War Examination], 9 Duke Street, Adelphi, W.C.2.
- MITCHELL: GEORGE ANGUS [Special War Examination], 148 Union Street, Aberdeen.
- MURRAY: KEITH DAY PEARCE [Special War Examination], 1 Mecklenburg Square, W.C.1.
- NEEDHAM: CHARLES WILLIAM CASHMORE [Special War Examination], 29 High Ousegate, York.
- PALMER: JAMES [S. 1911—Special War Exemption], 130 Balls Pond Road, Islington, N.1.
- PICKFORD: LEONARD [Special War Examination], 108 Fernside Road, Wandsworth Common, S.W.12.
- PINFOLD: STANLEY [Special War Examination], 317 Camden Road, Holloway, N.7.
- PLEDGE: CHARLES TERRY [Special War Examination], 88 Algernon Road, Ladywell, S.E.
- PLUMLEY: DONALD JOHN GRANT [Special Examination], 38 Margravine Gardens, Baron's Court, W.6.
- PROSSER: DONALD SYDNEY [Special War Examination], 6 Harvist Road, N.W.6.
- QUICK: NORMAN DENNIS [Special War Examination], Leicester House, 6 Bedford Place, W.C.1.
- RIDGE: THOMAS [Special War Examination], Bank Chambers, Oswestry.
- SHARP: FRANCIS GEORGE [Special War Examination], Ingleholme, Brockley View, Forest Hill, S.E.23.
- SKINNER: CEDRIC GEORGE [Special War Examination], 27 Orchard Street, College Green, Bristol.
- SMALL: WILLIAM [Special War Examination], 73A South Side Clapham Common, S.W.4.
- SNEEL: ALFRED [Special War Examination], 100 Station Road, Harrow.
- SOUTAR: CHARLES GEDDES, F.S.A. Scot. [Special War Examination], 15 South Tay Street, Dundee.
- STABLEFORD: CHARLES HENRY [Special War Examination], 26 Hotham Road, Putney, S.W.15.
- STOCKER: ALEXANDER [Special War Examination], 35 Waldemar Avenue, Fulham, S.W.6.
- STREETER: FREDERICK ROBERT [Special War Examination], Redholme, Tyrone Road, Thorpe Bay, Essex.
- SUNDERLAND: CYRIL [Special War Examination], 23 York Crescent, King Cross, Halifax.
- SYKES: MARK NEVILLE [Special War Examination], 75 Cardigan Road, Leeds.
- SYMONDS: JAMES BLAKENEY [Special War Examination], "Howfield," 111-113, Denmark Hill, S.E.5.
- TAYLOR: WILLIAM JOHN [Special War Examination], "Belladale," Fairfield Road, Inverness.
- TELLERY: FRANK IGATZ [Special Examination], c/o Alliance Bank of Simla, Ltd., 40 Old Broad Street, E.C.
- TOWLE: CHARLES RAYMOND [Special War Examination], 67 Sydenham Hill, S.E.23.
- WHITE: RAYMOND CHARLES [Special War Examination], 4 Birten Hill, Aylesbury.
- WILKINSON: FRED, P.A.S.I. [Final Examination], 162, Long Lee Terrace, Keighley, Yorks.
- WILLIAMS: LEO JOHN [Special War Examination], Mennaye, Penzance, Cornwall.
- WILLIAMSON: JOHN [Special Examination], County Hall, Cardiff.
- WINCH: KENNETH MARK [Special War Examination], 56 Stevenage Road, S.W.6.
- WISEMAN: ARTHUR ERIC [Special War Examination], 15 Glebe Road, Chelmsford.
- YEATS: JOHN [Special War Examination], 13 Springbank Terrace, Aberdeen.
- YOUNG: CEDRIC JOHN MATHISON, M.C. [Special War Examination], 42 Tay Street, Perth, Scotland.
- YOUNG: FREDERIC NEWALL [Special War Examination], Works Department, Messrs. Butterfield and Swire, Hong Kong.

PRIZES AND STUDENTSHIPS.

The Air Ministry and the Grissell Prize.

The Air Council have signified their warm appreciation of the decision of the Council of the Royal Institute of British Architects to award the Grissell Prize this year for the best design of an Airship Mooring Mast. The prize consists of a Gold Medal and the sum of £50. The competition is open to architects who are British subjects and have not been in professional practice for more than ten years. As a further indication of their interest in the competition, the Air Council have asked that facilities shall be given them to see the more promising designs submitted by competitors, and express their readiness to nominate an expert to give his assistance to the Grissell Prize Committee on any points in which actual airship experience would be of value.

Mr. Raymond Unwin [F.] will give a lecture on 25th October, at the rooms of the Sociological Society, on "Preparations for the General Adoption of Town Planning." Mr. H. V. Lanchester [F.] will take the chair at 8.15 p.m.



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